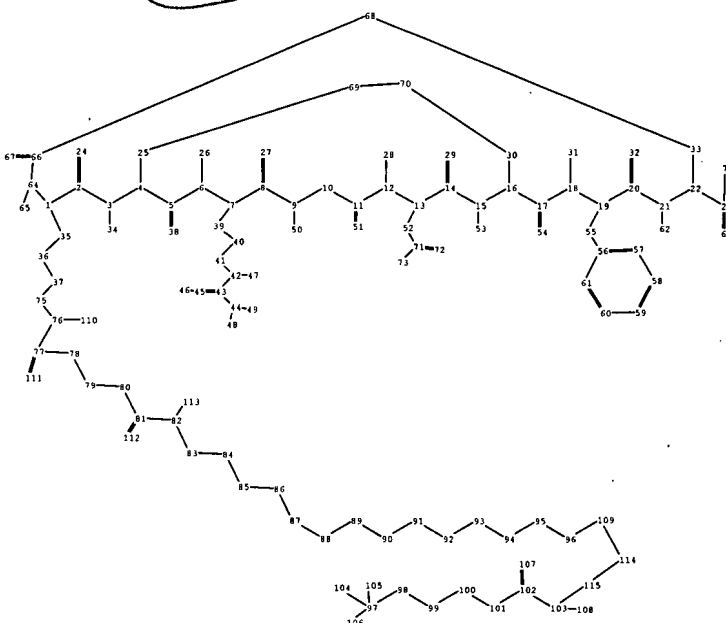
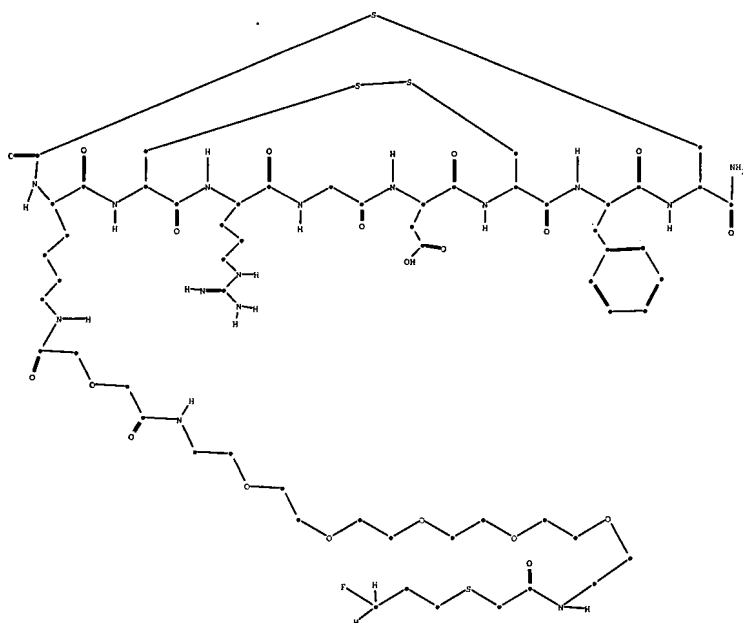


Hughes  
Search

## chain nodes :

23 24 26 27 28 29 31 32 34 35 36 37 38 39 40 41 42 43 44  
45 46 47 48 49 50 51 52 53 54 55 62 63 65 67 71 72 73 74  
75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93  
94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109  
110 111 112 113 114 115

## ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21  
22 25 30 33 56 57 58 59 60 61 64 66 68 69 70

## chain bonds :

1-35 2-24 3-34 5-38 6-26 7-39 8-27 9-50 11-51 12-28 13-52 14-29  
15-53 17-54 18-31 19-55 20-32 21-62 22-23 23-63 23-74 35-36 36-37  
37-75 39-40 40-41 41-42 42-43 42-47 43-44 43-45 44-48 44-49 45-46  
52-71 55-56 64-65 66-67 71-72 71-73 75-76 76-77 76-110 77-78  
77-111 78-79 79-80 80-81 81-82 81-112 82-83 82-113 83-84 84-85  
85-86 86-87 87-88 88-89 89-90 90-91 91-92 92-93 93-94 94-95 95-96  
96-109 97-98 97-104 97-105 97-106 98-99 99-100 100-101 101-102  
102-103 102-107 103-108 103-115 109-114 114-115

## ring bonds :

1-2 1-64 2-3 3-4 4-5 4-25 5-6 6-7 7-8 8-9 9-10 10-11 11-12  
12-13 13-14 14-15 15-16 16-17 16-30 17-18 18-19 19-20 20-21 21-22  
22-33 25-69 30-70 33-68 56-57 56-61 57-58 58-59 59-60 60-61 64-66  
66-68 69-70

## exact/norm bonds :

1-2 1-64 2-3 2-24 3-4 4-5 4-25 5-6 5-38 6-7 7-8 8-9 8-27 9-10  
10-11 11-12 11-51 12-13 13-14 14-15 14-29 15-16 16-17 16-30 17-18  
17-54 18-19 19-20 20-21 20-32 21-22 22-33 23-63 23-74 25-69 30-70  
33-68 41-42 42-43 43-44 43-45 64-66 66-67 66-68 69-70 75-76 76-77  
77-111 78-79 79-80 81-82 81-112 82-83 84-85 85-86 87-88 88-89  
90-91 91-92 93-94 94-95 96-109 99-100 100-101 102-103 102-107  
103-115 109-114

## exact bonds :

1-35 3-34 6-26 7-39 9-50 12-28 13-52 15-53 18-31 19-55 21-62  
22-23 35-36 36-37 37-75 39-40 40-41 42-47 44-48 44-49 45-46 52-71  
55-56

64-65 76-110 77-78 80-81 82-113 83-84 86-87 89-90 92-93  
95-96 97-98 97-104 97-105 97-106 98-99 101-102 103-108 114-115  
normalized bonds :  
56-57 56-61 57-58 58-59 59-60 60-61 71-72 71-73

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom  
10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom  
18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:CLASS 24:CLASS 25:Atom  
26:CLASS 27:CLASS 28:CLASS 29:CLASS 30:Atom 31:CLASS 32:CLASS  
33:Atom 34:CLASS 35:CLASS 36:CLASS 37:CLASS 38:CLASS 39:CLASS  
40:CLASS 41:CLASS 42:CLASS 43:CLASS 44:CLASS 45:CLASS 46:CLASS  
47:CLASS 48:CLASS 49:CLASS 50:CLASS 51:CLASS 52:CLASS 53:CLASS  
54:CLASS 55:CLASS 56:Atom 57:Atom 58:Atom 59:Atom 60:Atom 61:Atom  
62:CLASS 63:CLASS 64:Atom 65:CLASS 66:Atom 67:CLASS 68:Atom 69:Atom  
70:Atom 71:CLASS 72:CLASS 73:CLASS 74:CLASS 75:CLASS 76:CLASS  
77:CLASS 78:CLASS 79:CLASS 80:CLASS 81:CLASS 82:CLASS 83:CLASS  
84:CLASS 85:CLASS 86:CLASS 87:CLASS 88:CLASS 89:CLASS 90:CLASS  
91:CLASS 92:CLASS 93:CLASS 94:CLASS 95:CLASS 96:CLASS 97:CLASS  
98:CLASS 99:CLASS 100:CLASS 101:CLASS 102:CLASS 103:CLASS 104:CLASS  
105:CLASS 106:CLASS 107:CLASS 108:CLASS 109:CLASS 110:CLASS 111:CLASS  
112:CLASS 113:CLASS 114:CLASS 115:CLASS

Cuthbertson 10 566 487 = Structure of Claim 7, as diagrammed in claim

LOGINID:SSPTAHPY1654

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 10:58:00 ON 22 MAR 2007

=> file registry

FILE 'REGISTRY' ENTERED AT 10:58:10 ON 22 MAR 2007

=>

Uploading C:\Program Files\Stnexp\Queries\Cuthbertson 10 566 487 clm7.str

L1 STRUCTURE UPLOADED

=> d L1

L1 HAS NO ANSWERS

L1 STR

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

Structure attributes must be viewed using STN Express query preparation.

=> s L1 SSS SAM

SAMPLE SEARCH INITIATED 10:59:12 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED 0 ITERATIONS 0 ANSWERS  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 0 TO 0  
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s L1 SSS FULL

FULL SEARCH INITIATED 10:59:23 FILE 'REGISTRY'

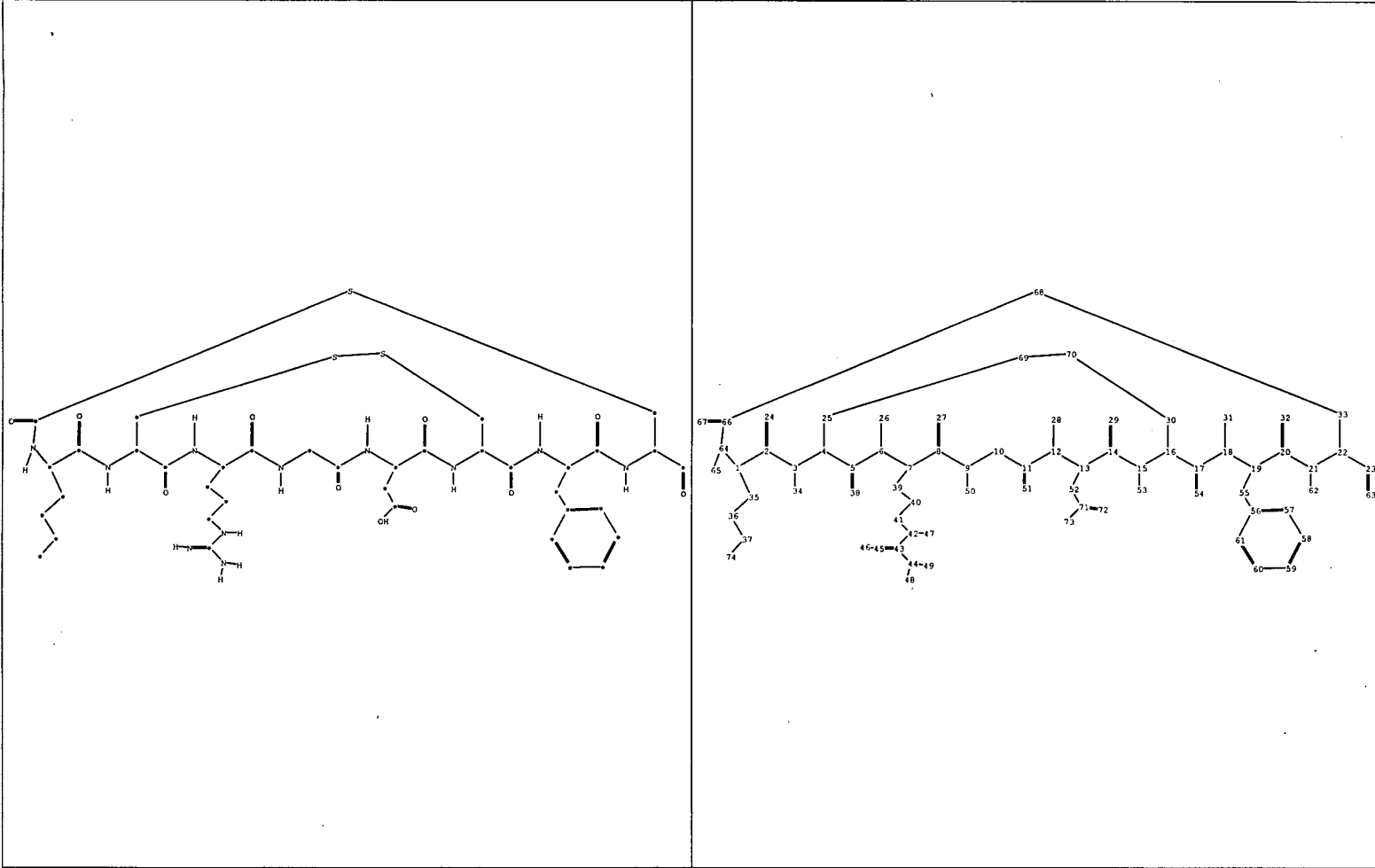
FULL SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED 0 ITERATIONS 0 ANSWERS  
SEARCH TIME: 00.00.01

L3 0 SEA SSS FUL L1

=> file stnguide

FILE 'STNGUIDE' ENTERED AT 10:59:45 ON 22 MAR 2007



chain nodes :  
23 24 26 27 28 29 31 32 34 35 36 37 38 39 40 41 42 43 44  
45 46 47 48 49 50 51 52 53 54 55 62 63 65 67 71 72 73 74

ring nodes :  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21  
22 25 30 33 56 57 58 59 60 61 64 66 68 69 70

chain bonds :  
1-35 2-24 3-34 5-38 6-26 7-39 8-27 9-50 11-51 12-28 13-52 14-29  
15-53 17-54 18-31 19-55 20-32 21-62 22-23 23-63 35-36 36-37 37-74  
39-40 40-41 41-42 42-43 42-47 43-44 43-45 44-48 44-49 45-46 52-71  
55-56 64-65 66-67 71-72 71-73

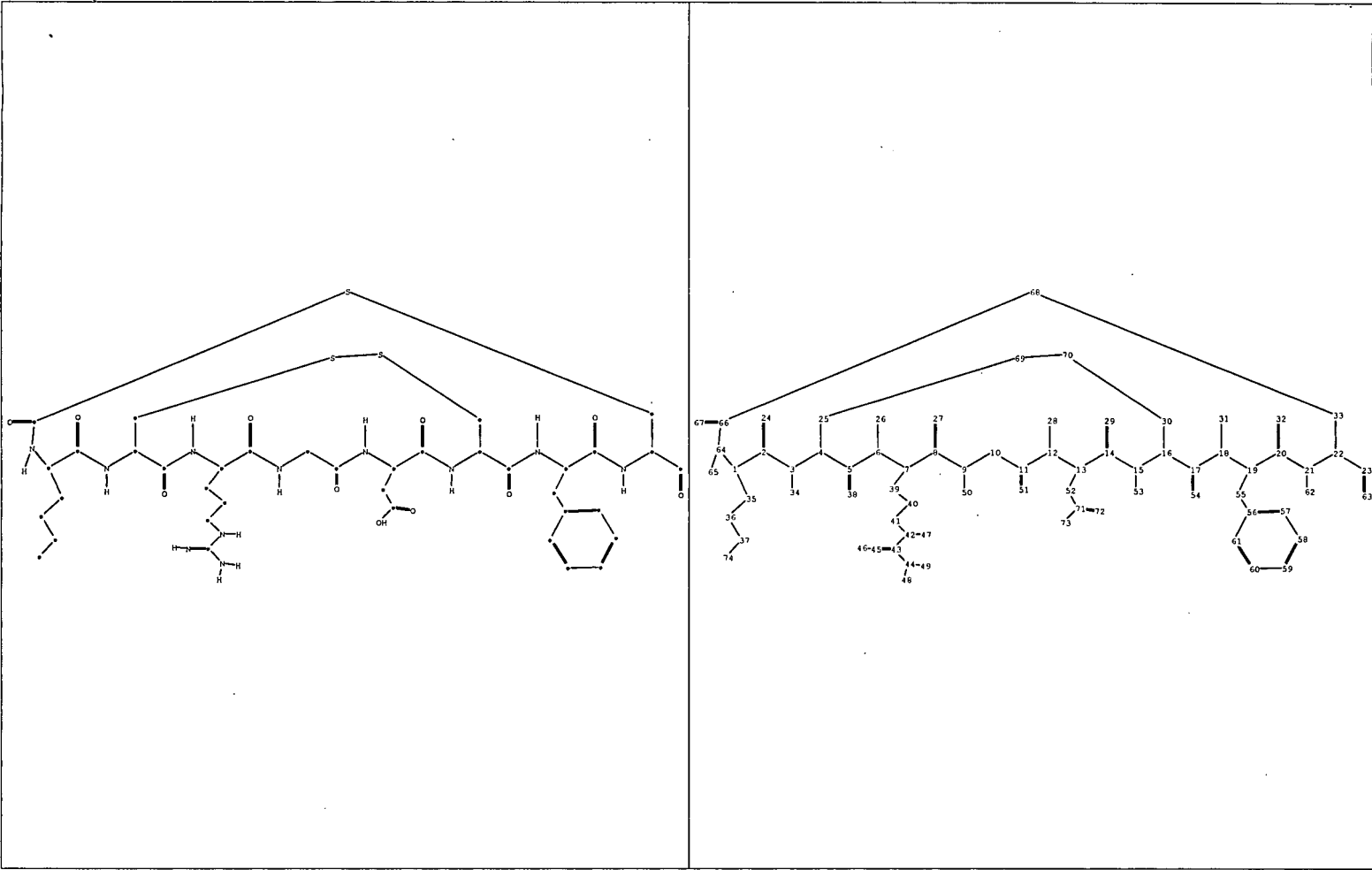
ring bonds :  
1-2 1-64 2-3 3-4 4-5 4-25 5-6 6-7 7-8 8-9 9-10 10-11 11-12  
12-13 13-14 14-15 15-16 16-17 16-30 17-18 18-19 19-20 20-21 21-22  
22-33 25-69 30-70 33-68 56-57 56-61 57-58 58-59 59-60 60-61 64-66  
66-68 69-70

exact/norm bonds :  
1-2 1-64 2-3 2-24 3-4 4-5 4-25 5-6 5-38 6-7 7-8 8-9 8-27 9-10  
10-11 11-12 11-51 12-13 13-14 14-15 14-29 15-16 16-17 16-30 17-18  
17-54 18-19 19-20 20-21 20-32 21-22 22-33 23-63 25-69 30-70 33-68  
41-42 42-43 43-44 43-45 64-66 66-67 66-68 69-70

exact bonds :  
1-35 3-34 6-26 7-39 9-50 12-28 13-52 15-53 18-31 19-55 21-62  
22-23 35-36 36-37 37-74 39-40 40-41 42-47 44-48 44-49 45-46 52-71  
55-56 64-65

normalized bonds :  
56-57 56-61 57-58 58-59 59-60 60-61 71-72 71-73

Match level :  
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom  
10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom  
18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:CLASS 24:CLASS 25:Atom  
26:CLASS 27:CLASS 28:CLASS 29:CLASS 30:Atom 31:CLASS 32:CLASS  
33:Atom



chain nodes :  
23 24 26 27 28 29 31 32 34 35 36 37 38 39 40 41 42 43 44  
45 46 47 48 49 50 51 52 53 54 55 62 63 65 67 71 72 73 74

ring nodes :  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21  
22 25 30 33 56 57 58 59 60 61 64 66 68 69 70

chain bonds :  
1-35 2-24 3-34 5-38 6-26 7-39 8-27 9-50 11-51 12-28 13-52 14-29  
15-53 17-54 18-31 19-55 20-32 21-62 22-23 23-63 35-36 36-37 37-74  
39-40 40-41 41-42 42-43 42-47 43-44 43-45 44-48 44-49 45-46 52-71  
55-56 64-65 66-67 71-72 71-73

ring bonds :  
1-2 1-64 2-3 3-4 4-5 4-25 5-6 6-7 7-8 8-9 9-10 10-11 11-12  
12-13 13-14 14-15 15-16 16-17 16-30 17-18 18-19 19-20 20-21 21-22  
22-33 25-69 30-70 33-68 56-57 56-61 57-58 58-59 59-60 60-61 64-66  
66-68 69-70

exact/norm bonds :  
1-2 1-64 2-3 2-24 3-4 4-5 4-25 5-6 5-38 6-7 7-8 8-9 8-27 9-10  
10-11 11-12 11-51 12-13 13-14 14-15 14-29 15-16 16-17 16-30 17-18  
17-54 18-19 19-20 20-21 20-32 21-22 22-33 23-63 25-69 30-70 33-68  
41-42 42-43 43-44 43-45 64-66 66-67 66-68 69-70

exact bonds :  
1-35 3-34 6-26 7-39 9-50 12-28 13-52 15-53 18-31 19-55 21-62  
22-23 35-36 36-37 37-74 39-40 40-41 42-47 44-48 44-49 45-46 52-71  
55-56 64-65

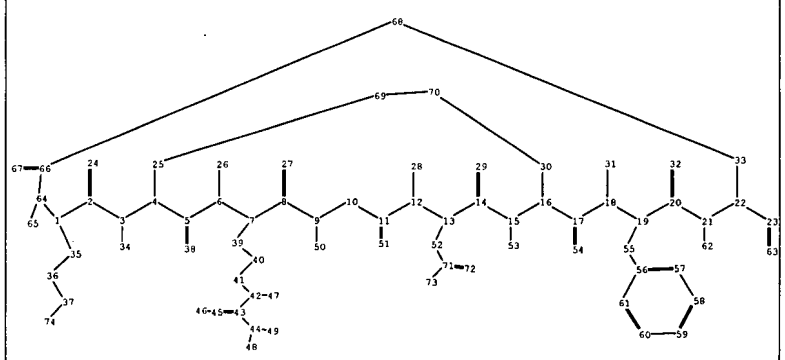
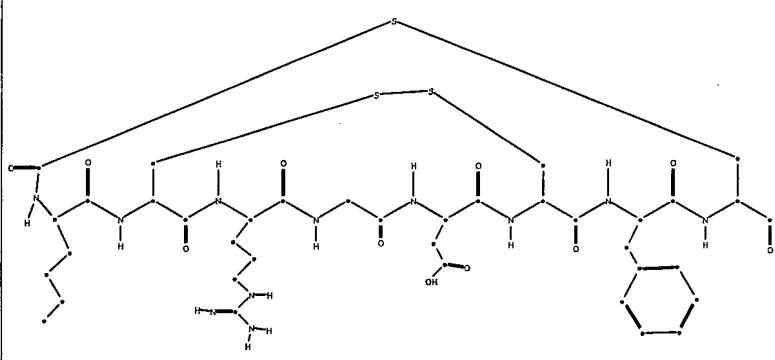
normalized bonds :  
56-57 56-61 57-58 58-59 59-60 60-61 71-72 71-73

Match level :  
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom  
10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom  
18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:CLASS 24:CLASS 25:Atom  
26:CLASS 27:CLASS 28:CLASS 29:CLASS 30:Atom 31:CLASS 32:CLASS  
33:Atom

	34:CLASS	35:CLASS	36:CLASS	37:CLASS	38:CLASS	39:CLASS
40:CLASS	41:CLASS	42:CLASS	43:CLASS	44:CLASS	45:CLASS	46:CLASS
47:CLASS	48:CLASS	49:CLASS	50:CLASS	51:CLASS	52:CLASS	53:CLASS
54:CLASS	55:CLASS	56:Atom	57:Atom	58:Atom	59:Atom	60:Atom
61:Atom	62:CLASS	63:CLASS	64:Atom	65:CLASS	66:Atom	67:CLASS
68:Atom	69:Atom	70:Atom	71:CLASS	72:CLASS	73:CLASS	74:CLASS

34:CLASS 35:CLASS 36:CLASS 37:CLASS 38:CLASS 39:CLASS  
40:CLASS 41:CLASS 42:CLASS 43:CLASS 44:CLASS 45:CLASS 46:CLASS  
47:CLASS 48:CLASS 49:CLASS 50:CLASS 51:CLASS 52:CLASS 53:CLASS  
54:CLASS 55:CLASS 56:Atom 57:Atom 58:Atom 59:Atom 60:Atom 61:Atom  
62:CLASS 63:CLASS 64:Atom 65:CLASS 66:Atom 67:CLASS 68:Atom 69:Atom  
70:Atom 71:CLASS 72:CLASS 73:CLASS 74:CLASS

Hughes  
Search



chain nodes :  
23 24 26 27 28 29 31 32 34 35 36 37 38 39 40 41 42 43 44  
45 46 47 48 49 50 51 52 53 54 55 62 63 65 67 71 72 73 74

ring nodes :  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21  
22 25 30 33 56 57 58 59 60 61 64 66 68 69 70

chain bonds :  
1-35 2-24 3-34 5-38 6-26 7-39 8-27 9-50 11-51 12-28 13-52 14-29  
15-53 17-54 18-31 19-55 20-32 21-62 22-23 23-63 35-36 36-37 37-74  
39-40 40-41 41-42 42-43 42-47 43-44 43-45 44-48 44-49 45-46 52-71  
55-56 64-65 66-67 71-72 71-73

ring bonds :  
1-2 1-64 2-3 3-4 4-5 4-25 5-6 6-7 7-8 8-9 9-10 10-11 11-12  
12-13 13-14 14-15 15-16 16-17 16-30 17-18 18-19 19-20 20-21 21-22  
22-33 25-69 30-70 33-68 56-57 56-61 57-58 58-59 59-60 60-61 64-66  
66-68 69-70

exact/norm bonds :  
1-2 1-64 2-3 2-24 3-4 4-5 4-25 5-6 5-38 6-7 7-8 8-9 8-27 9-10  
10-11 11-12 11-51 12-13 13-14 14-15 14-29 15-16 16-17 16-30 17-18  
17-54 18-19 19-20 20-21 20-32 21-22 22-33 23-63 25-69 30-70 33-68  
41-42 42-43 43-44 43-45 64-66 66-67 66-68 69-70

exact bonds :  
1-35 3-34 6-26 7-39 9-50 12-28 13-52 15-53 18-31 19-55 21-62  
22-23 35-36 36-37 37-74 39-40 40-41 42-47 44-48 44-49 45-46 52-71  
55-56 64-65

normalized bonds :  
56-57 56-61 57-58 58-59 59-60 60-61 71-72 71-73

Match level :  
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom  
10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom  
18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:CLASS 24:CLASS 25:Atom  
26:CLASS 27:CLASS 28:CLASS 29:CLASS 30:Atom 31:CLASS 32:CLASS  
33:Atom



	34:CLASS	35:CLASS	36:CLASS	37:CLASS	38:CLASS	39:CLASS	
40:CLASS	41:CLASS	42:CLASS	43:CLASS	44:CLASS	45:CLASS	46:CLASS	
47:CLASS	48:CLASS	49:CLASS	50:CLASS	51:CLASS	52:CLASS	53:CLASS	
54:CLASS	55:CLASS	56:Atom	57:Atom	58:Atom	59:Atom	60:Atom	61:Atom
62:CLASS	63:CLASS	64:Atom	65:CLASS	66:Atom	67:CLASS	68:Atom	69:Atom
70:Atom	71:CLASS	72:CLASS	73:CLASS	74:CLASS			

Cuthbertson 10 566 487 = "core structure" (double-loop) of Claim 7

LOGINID:SSPTAHPY1654

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 10:58:00 ON 22 MAR 2007

=> file registry

FILE 'REGISTRY' ENTERED AT 10:58:10 ON 22 MAR 2007

=>

Uploading C:\Program Files\Stnexp\Queries\Cuthbertson 10 566 487 clm7.str

L1 STRUCTURE UPLOADED

=> d L1

L1 HAS NO ANSWERS

L1 STR

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

Structure attributes must be viewed using STN Express query preparation.

=> s L1 SSS SAM

SAMPLE SEARCH INITIATED 10:59:12 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED 0 ITERATIONS 0 ANSWERS  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 0 TO 0  
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s L1 SSS FULL

FULL SEARCH INITIATED 10:59:23 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED 0 ITERATIONS 0 ANSWERS  
SEARCH TIME: 00.00.01

L3 0 SEA SSS FUL L1

=> file stnguide

FILE 'STNGUIDE' ENTERED AT 10:59:45 ON 22 MAR 2007

Hughes  
Search

Cuthbertson 10/ 566 487 = STN structure= claim 1/Formula I

Structure-search of Formula I/claim 1; group "W1" is "absent" and not included; group "R2" is present 0-10 repeats, modeled here as (1) repeat or (0 = not present); group R3 is modeled as CH2 (embedded) or as present 1-4 repeats. No stereo-orientations specified.

Searched as SubStructureSearch = SSS sam/ful,  
LOGINID:SSPTAHPY1654

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 10:15:47 ON 14 MAR 2007

=> file registry

=>

Uploading C:\Program Files\Stnexp\Queries\Cuthbertson 10 566 487 grpI.str

L1 STRUCTURE UPLOADED

=> D L1

L1 HAS NO ANSWERS

L1 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

=> s L1 SSS SAM

SAMPLE SEARCH INITIATED 10:17:49 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED 0 ITERATIONS 0 ANSWERS  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 0 TO 0

PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s L1 SSS FULL

FULL SEARCH INITIATED 10:18:04 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 5 TO ITERATE

100.0% PROCESSED 5 ITERATIONS 0 ANSWERS  
SEARCH TIME: 00.00.01

L3 0 SEA SSS FUL L1

=> file stnguide

FILE 'STNGUIDE' ENTERED AT 10:18:15 ON 14 MAR 2007

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 10:51:08 ON 14 MAR 2007

=> file registry

FILE 'REGISTRY' ENTERED AT 10:51:17 ON 14 MAR 2007

=>

Uploading C:\Program Files\Stnexp\Queries\Cuthbertson 10 566 487 srlb.str

L1 STRUCTURE UPLOADED

=> d L1

L1 HAS NO ANSWERS

L1 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

=> s L1 sss sam

SAMPLE SEARCH INITIATED 10:52:25 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED 0 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 0 TO 0

PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s L1 SSS FULL

FULL SEARCH INITIATED 10:52:35 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 3 TO ITERATE

100.0% PROCESSED 3 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

L3 0 SEA SSS FUL L1

\*\*\*\*\* STN Columbus \*\*\*\*\*

FILE 'HOME' ENTERED AT 10:57:17 ON 14 MAR 2007

=> file registry

FILE 'REGISTRY' ENTERED AT 10:57:27 ON 14 MAR 2007

=>

Uploading C:\Program Files\Stnexp\Queries\Cuthbertson 10 566 487 srlc.str

L1 STRUCTURE UPLOADED

=> d L1

L1 HAS NO ANSWERS

L1 STR

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

Structure attributes must be viewed using STN Express query preparation.

=> s L1 SSS SAM

SAMPLE SEARCH INITIATED 10:58:11 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED 0 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 0 TO 0  
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s L1 SSS FULL

FULL SEARCH INITIATED 10:58:19 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED 0 ITERATIONS

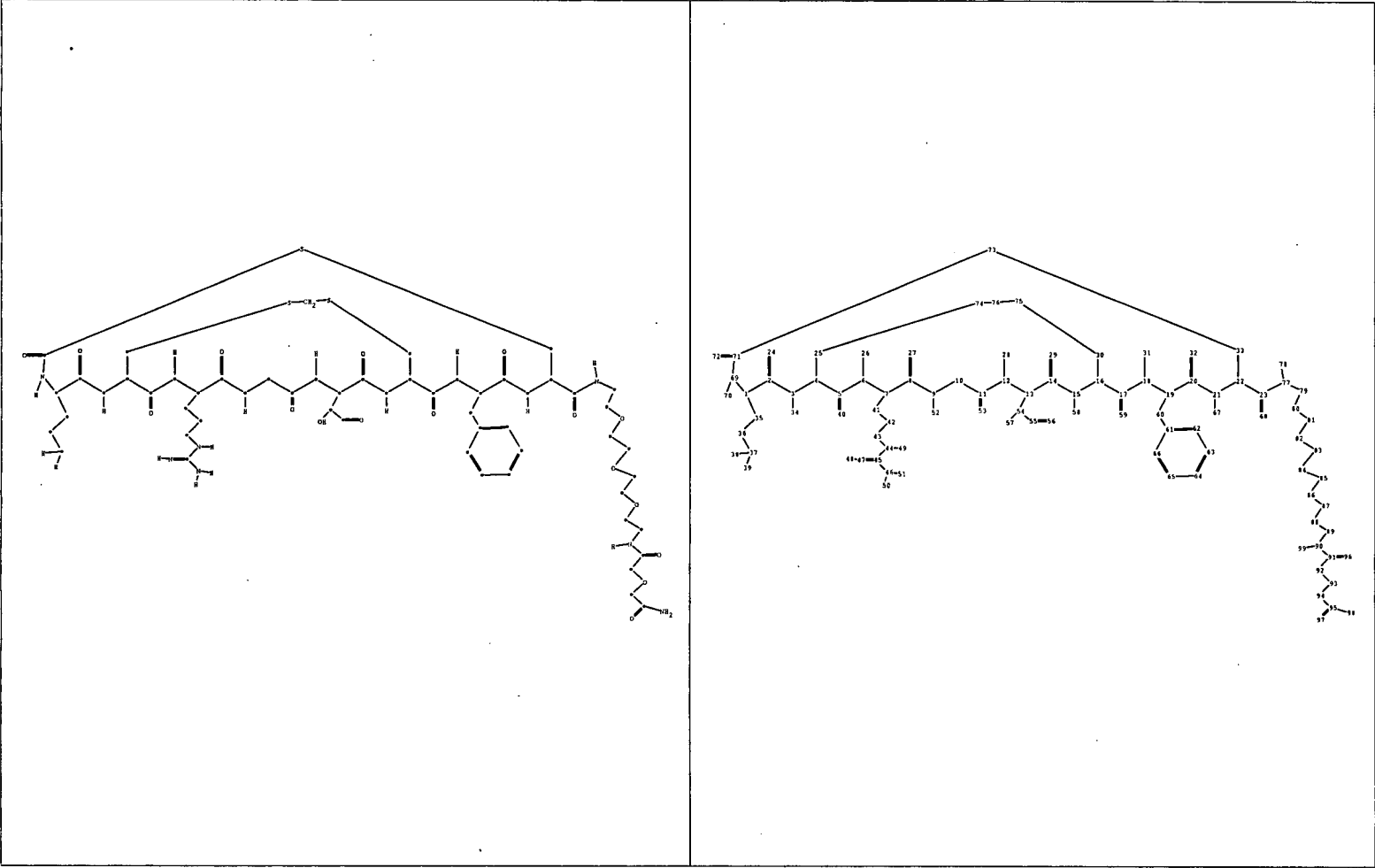
0 ANSWERS

SEARCH TIME: 00.00.01

L3 0 SEA SSS FUL L1

=> file stnguide

FILE 'STNGUIDE' ENTERED AT 10:58:33 ON 14 MAR 2007



chain nodes :  
23 24 26 27 28 29 31 32 34 35 36 37 38 39 40 41 42 43 44  
45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 67 68 70  
72 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94  
95 96 97 98 99

ring nodes :  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21  
22 25 30 33 61 62 63 64 65 66 69 71 73 74 75 76

chain bonds :  
1-35 2-24 3-34 5-40 6-26 7-41 8-27 9-52 11-53 12-28 13-54 14-29  
15-58 17-59 18-31 19-60 20-32 21-67 22-23 23-68 23-77 35-36 36-37  
37-38 37-39 41-42 42-43 43-44 44-45 44-49 45-46 45-47 46-50 46-51  
47-48 54-55 54-57 55-56 60-61 69-70 71-72 77-78 77-79 79-80 80-81  
81-82 82-83 83-84 84-85 85-86 86-87 87-88 88-89 89-90 90-91 90-99  
91-92 91-96 92-93 93-94 94-95 95-97 95-98

ring bonds :  
1-2 1-69 2-3 3-4 4-5 4-25 5-6 6-7 7-8 8-9 9-10 10-11 11-12  
12-13 13-14 14-15 15-16 16-17 16-30 17-18 18-19 19-20 20-21 21-22  
22-33 25-74 30-75 33-73 61-62 61-66 62-63 63-64 64-65 65-66 69-71  
71-73 74-76 75-76

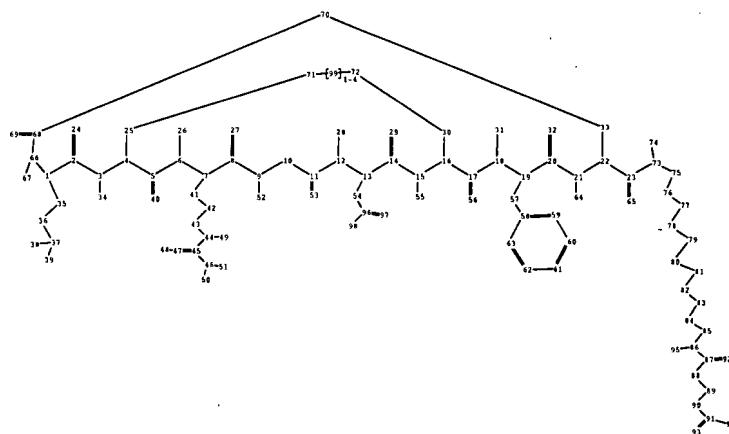
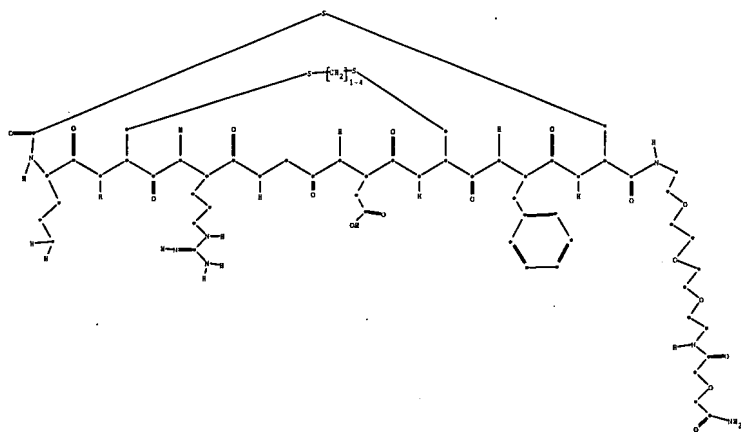
exact/norm bonds :  
1-2 1-69 2-3 2-24 3-4 4-5 4-25 5-6 5-40 6-7 7-8 8-9 8-27 9-10  
10-11 11-12 11-53 12-13 13-14 14-15 14-29 15-16 16-17 16-30 17-18  
17-59 18-19 19-20 20-21 20-32 21-22 22-33 23-68 23-77 25-74 30-75  
33-73 43-44 44-45 45-46 45-47 54-57 55-56 69-71 71-72 71-73 74-76  
75-76 77-79 80-81 81-82 83-84 84-85 86-87 87-88 89-90 90-91 91-96  
92-93 93-94 95-97 95-98

exact bonds :  
1-35 3-34 6-26 7-41 9-52 12-28 13-54 15-58 18-31 19-60 21-67  
22-23 35-36 36-37 37-38 37-39 41-42 42-43 44-49 46-50 46-51 47-48  
54-55 60-61 69-70 77-78 79-80 82-83 85-86 88-89 90-99 91-92 94-95

normalized bonds :  
61-62 61-66 62-63 63-64 64-65 65-66

Match level :

1:Atom	2:Atom	3:Atom	4:Atom	5:Atom	6:Atom	7:Atom	8:Atom	9:Atom
10:Atom	11:Atom	12:Atom	13:Atom	14:Atom	15:Atom	16:Atom	17:Atom	
18:Atom	19:Atom	20:Atom	21:Atom	22:Atom	23:CLASS	24:CLASS	25:Atom	
26:CLASS	27:CLASS	28:CLASS	29:CLASS	30:Atom	31:CLASS	32:CLASS		
33:Atom	34:CLASS	35:CLASS	36:CLASS	37:CLASS	38:CLASS	39:CLASS		
40:CLASS	41:CLASS	42:CLASS	43:CLASS	44:CLASS	45:CLASS	46:CLASS		
47:CLASS	48:CLASS	49:CLASS	50:CLASS	51:CLASS	52:CLASS	53:CLASS		
54:CLASS	55:CLASS	56:CLASS	57:CLASS	58:CLASS	59:CLASS	60:CLASS		
61:Atom	62:Atom	63:Atom	64:Atom	65:Atom	66:Atom	67:CLASS	68:CLASS	
69:Atom	70:CLASS	71:Atom	72:CLASS	73:Atom	74:Atom	75:Atom	76:Atom	
77:CLASS	78:CLASS	79:CLASS	80:CLASS	81:CLASS	82:CLASS	83:CLASS		
84:CLASS	85:CLASS	86:CLASS	87:CLASS	88:CLASS	89:CLASS	90:CLASS		
91:CLASS	92:CLASS	93:CLASS	94:CLASS	95:CLASS	96:CLASS	97:CLASS		
98:CLASS	99:CLASS							



## chain nodes :

23	24	26	27	28	29	31	32	34	35	36	37	38	39	40	41	42	43	44
45	46	47	48	49	50	51	52	53	54	55	56	57	64	65	67	69	73	74
75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93
94	95	96	97	98														

## ring nodes :

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
22	25	30	33	58	59	60	61	62	63	66	68	70	71	72	99					

## chain bonds :

1-35	2-24	3-34	5-40	6-26	7-41	8-27	9-52	11-53	12-28	13-54	14-29
15-55	17-56	18-31	19-57	20-32	21-64	22-23	23-65	23-73	35-36	36-37	
37-38	37-39	41-42	42-43	43-44	44-45	44-49	45-46	45-47	46-50	46-51	
47-48	54-96	57-58	66-67	68-69	73-74	73-75	75-76	76-77	77-78	78-79	
79-80	80-81	81-82	82-83	83-84	84-85	85-86	86-87	86-95	87-88	87-92	
88-89	89-90	90-91	91-93	91-94	96-97	96-98					

## ring bonds :

1-2	1-66	2-3	3-4	4-5	4-25	5-6	6-7	7-8	8-9	9-10	10-11	11-12
12-13	13-14	14-15	15-16	16-17	16-30	17-18	18-19	19-20	20-21	21-22		
22-33	25-71	30-72	33-70	58-59	58-63	59-60	60-61	61-62	62-63	66-68		
68-70	71-99	72-99										

## exact/norm bonds :

1-2	1-66	2-3	2-24	3-4	4-5	4-25	5-6	5-40	6-7	7-8	8-9	8-27	9-10
10-11	11-12	11-53	12-13	13-14	14-15	14-29	15-16	16-17	16-30	17-18			
17-56	18-19	19-20	20-21	20-32	21-22	22-33	23-65	23-73	25-71	30-72			
33-70	43-44	44-45	45-46	45-47	66-68	68-69	68-70	71-99	72-99	73-75			
76-77	77-78	79-80	80-81	82-83	83-84	85-86	86-87	87-92	88-89	89-90			
91-93	91-94												

## exact bonds :

1-35	3-34	6-26	7-41	9-52	12-28	13-54	15-55	18-31	19-57	21-64			
22-23	35-36	36-37	37-38	37-39	41-42	42-43	44-49	46-50	46-51	47-48			
54-96	57-58	66-67	73-74	75-76	78-79	81-82	84-85	86-95	87-88	90-91			

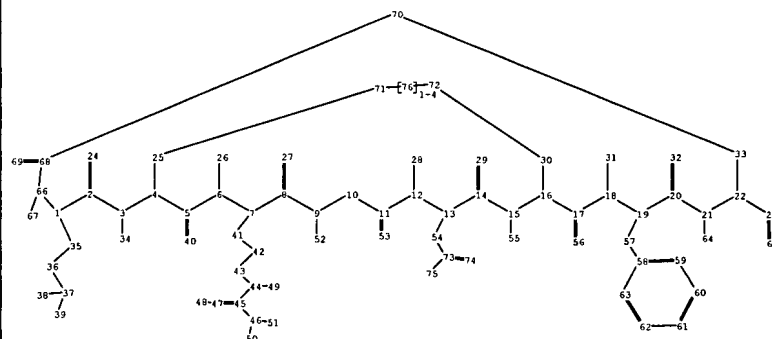
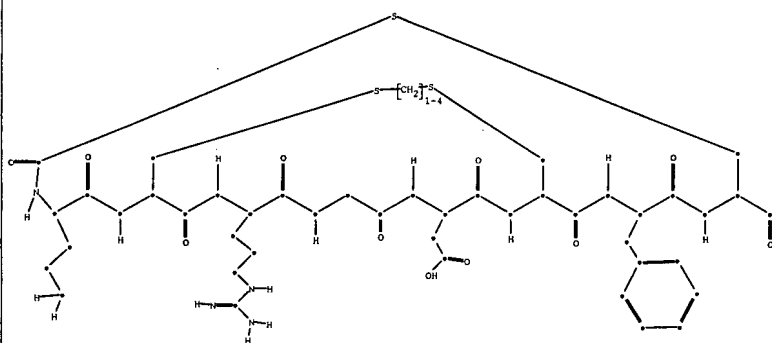
## normalized bonds :

58-59	58-63	59-60	60-61	61-62	62-63	96-97	96-98						
-------	-------	-------	-------	-------	-------	-------	-------	--	--	--	--	--	--



Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom  
10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom  
18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:CLASS 24:CLASS 25:Atom  
26:CLASS 27:CLASS 28:CLASS 29:CLASS 30:Atom 31:CLASS 32:CLASS  
33:Atom 34:CLASS 35:CLASS 36:CLASS 37:CLASS 38:CLASS 39:CLASS  
40:CLASS 41:CLASS 42:CLASS 43:CLASS 44:CLASS 45:CLASS 46:CLASS  
47:CLASS 48:CLASS 49:CLASS 50:CLASS 51:CLASS 52:CLASS 53:CLASS  
54:CLASS 55:CLASS 56:CLASS 57:CLASS 58:Atom 59:Atom 60:Atom 61:Atom  
62:Atom 63:Atom 64:CLASS 65:CLASS 66:Atom 67:CLASS 68:Atom 69:CLASS  
70:Atom 71:Atom 72:Atom 73:CLASS 74:CLASS 75:CLASS 76:CLASS 77:CLASS  
78:CLASS 79:CLASS 80:CLASS 81:CLASS 82:CLASS 83:CLASS 84:CLASS  
85:CLASS 86:CLASS 87:CLASS 88:CLASS 89:CLASS 90:CLASS 91:CLASS  
92:CLASS 93:CLASS 94:CLASS 95:CLASS 96:CLASS 97:CLASS 98:CLASS  
99:Atom



## chain nodes :

23 24 26 27 28 29 31 32 34 35 36 37 38 39 40 41 42 43 44  
 45 46 47 48 49 50 51 52 53 54 55 56 57 64 65 67 69 73 74  
 75

## ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21  
 22 25 30 33 58 59 60 61 62 63 66 68 70 71 72 76

## chain bonds :

1-35 2-24 3-34 5-40 6-26 7-41 8-27 9-52 11-53 12-28 13-54 14-29  
 15-55 17-56 18-31 19-57 20-32 21-64 22-23 23-65 35-36 36-37 37-38  
 37-39 41-42 42-43 43-44 44-45 44-49 45-46 45-47 46-50 46-51 47-48  
 54-73 57-58 66-67 68-69 73-74 73-75

## ring bonds :

1-2 1-66 2-3 3-4 4-5 4-25 5-6 6-7 7-8 8-9 9-10 10-11 11-12  
 12-13 13-14 14-15 15-16 16-17 16-30 17-18 18-19 19-20 20-21 21-22  
 22-33 25-71 30-72 33-70 58-59 58-63 59-60 60-61 61-62 62-63 66-68  
 68-70 71-76 72-76

## exact/norm bonds :

1-2 1-66 2-3 2-24 3-4 4-5 4-25 5-6 5-40 6-7 7-8 8-9 8-27 9-10  
 10-11 11-12 11-53 12-13 13-14 14-15 14-29 15-16 16-17 16-30 17-18  
 17-56 18-19 19-20 20-21 20-32 21-22 22-33 23-65 25-71 30-72 33-70  
 43-44 44-45 45-46 45-47 66-68 68-69 68-70 71-76 72-76

## exact bonds :

1-35 3-34 6-26 7-41 9-52 12-28 13-54 15-55 18-31 19-57 21-64  
 22-23 35-36 36-37 37-38 37-39 41-42 42-43 44-49 46-50 46-51 47-48  
 54-73 57-58 66-67

## normalized bonds :

58-59 58-63 59-60 60-61 61-62 62-63 73-74 73-75

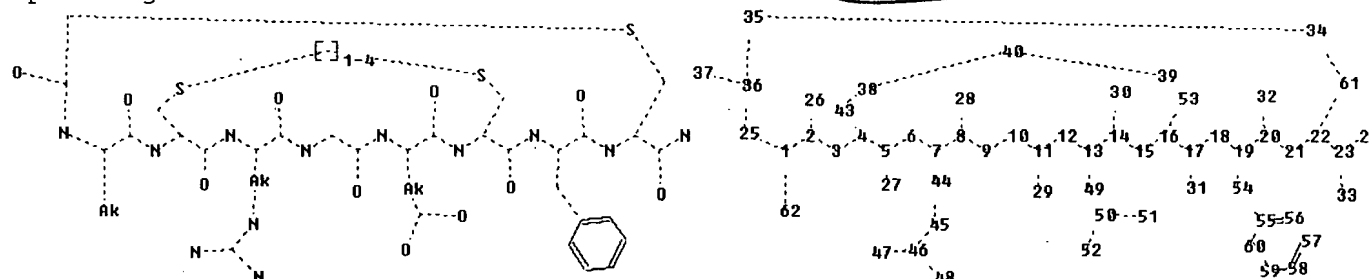
## Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom  
 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom  
 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:CLASS 24:CLASS 25:Atom  
 26:CLASS

	27:CLASS	28:CLASS	29:CLASS	30:Atom	31:CLASS	32:CLASS	
33:Atom	34:CLASS	35:CLASS	36:CLASS	37:CLASS	38:CLASS	39:CLASS	
40:CLASS	41:CLASS	42:CLASS	43:CLASS	44:CLASS	45:CLASS	46:CLASS	
47:CLASS	48:CLASS	49:CLASS	50:CLASS	51:CLASS	52:CLASS	53:CLASS	
54:CLASS	55:CLASS	56:CLASS	57:CLASS	58:Atom	59:Atom	60:Atom	61:Atom
62:Atom	63:Atom	64:CLASS	65:CLASS	66:Atom	67:CLASS	68:Atom	69:CLASS
70:Atom	71:Atom	72:Atom	73:CLASS	74:CLASS	75:CLASS	76:Atom	

3/15/7

Uploading 11.str



chain nodes :

23 24 26 27 28 29 30 31 32 33 37 44 45 46 47 48 49 50 51 52 54 62

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 25 34 35 36 38 39 40 43 53 55 56 57 58 59 60 61

chain bonds :

1-62 2-26 5-27 7-44 8-28 11-29 13-49 14-30 17-31 19-54 20-32 22-23 23-24

23-33 36-37 44-45 45-46 46-47 46-48 49-50 50-51 50-52 54-55

ring bonds :

1-2 1-25 2-3 3-4 4-5 4-43 5-6 6-7 7-8 8-9 9-10 10-11 11-12 12-13 13-14

14-15 15-16 16-17 16-53 17-18 18-19 19-20 20-21 21-22 22-61 25-36 34-35 34-61 35-36

38-40 38-43 39-40 39-53 55-56 55-60 56-57 57-58 58-59 59-60

exact/norm bonds :

1-2 1-25 1-62 2-3 2-26 3-4 4-5 4-43 5-6 5-27 6-7 7-8 7-44 8-9 8-28

9-10 10-11 11-12 11-29 12-13 13-14 13-49 14-15 14-30 15-16 16-17 16-53

17-18 17-31 18-19

19-20 19-54 20-21 20-32 21-22 22-23 22-61 23-24 23-33 25-36 34-35 34-61

35-36 36-37

38-40 38-43 39-40 39-53 44-45 45-46 46-47 46-48 49-50 50-51 50-52 54-55

normalized bonds :

55-56 55-60 56-57 57-58 58-59 59-60

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom

11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom

20:Atom 21:Atom

22:Atom 23:CLASS 24:CLASS 25:Atom 26:CLASS 27:CLASS 28:CLASS 29:CLASS

30:CLASS 31:CLASS 32:CLASS

33:CLASS 34:Atom 35:Atom 36:Atom 37:CLASS 38:Atom 39:Atom 40:Atom 43:Atom

44:CLASS

45:CLASS 46:CLASS 47:CLASS 48:CLASS 49:CLASS 50:CLASS 51:CLASS 52:CLASS

53:Atom 54:CLASS

55:Atom 56:Atom 57:Atom 58:Atom 59:Atom 60:Atom 61:Atom 62:CLASS

=&gt; d que 121

L15 94 SEA FILE=HCAPLUS ABB=ON PLU=ON ("CUTHBERTSON A"/AU OR

10566487

"CUTHBERTSON A C"/AU OR "CUTHBERTSON A F"/AU OR "CUTHBERTSON A  
F J"/AU OR "CUTHBERTSON A G S"/AU OR "CUTHBERTSON A M"/AU OR  
"CUTHBERTSON A S"/AU OR "CUTHBERTSON A Z"/AU OR "CUTHBERTSON  
ALAN"/AU OR "CUTHBERTSON ALAN J S"/AU OR "CUTHBERTSON ALAN  
S"/AU OR "CUTHBERTSON ALLAN S"/AU)  
L16 28 SEA FILE=HCAPLUS ABB=ON PLU=ON ("SOLBAKKEN M"/AU OR "SOLBAKKE  
N MAGNE"/AU)  
L17 19 SEA FILE=HCAPLUS ABB=ON PLU=ON L15 AND L16  
L18 14 SEA FILE=HCAPLUS ABB=ON PLU=ON L17 AND (AY<2004 OR PY<2004  
OR PRY<2004)  
L19 32 SEA FILE=HCAPLUS ABB=ON PLU=ON (L15 OR L16) AND (IMAGING?)  
L20 20 SEA FILE=HCAPLUS ABB=ON PLU=ON L19 AND (AY<2004 OR PY<2004  
OR PRY<2004)  
L21 24 SEA FILE=HCAPLUS ABB=ON PLU=ON (L20 OR L18)

=> d que l30

L22 437 SEA CUTHBERTSON A?/AU  
L23 74 SEA SOLBAKKEN M?/AU  
L24 49 SEA L22 AND L23  
L25 36 SEA L24 AND IMAGING?  
L26 25 SEA L25 AND (AY<2004 OR PY<2004 OR PRY<2004)  
L27 47 SEA (L22 OR L23) AND (IMAGING AGENT?)  
L28 29 SEA L27 AND (AY<2004 OR PY<2004 OR PRY<2004)  
L29 40 SEA (L26 OR L28)  
L30 29 SEA L29 AND (IMAGING AGENT?)

=> dup rem l21,l30

FILE 'HCAPLUS' ENTERED AT 13:57:33 ON 15 MAR 2007  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'MEDLINE' ENTERED AT 13:57:33 ON 15 MAR 2007

FILE 'EMBASE' ENTERED AT 13:57:33 ON 15 MAR 2007  
Copyright (c) 2007 Elsevier B.V. All rights reserved.

FILE 'BIOSIS' ENTERED AT 13:57:33 ON 15 MAR 2007  
Copyright (c) 2007 The Thomson Corporation

FILE 'WPIX' ENTERED AT 13:57:33 ON 15 MAR 2007  
COPYRIGHT (C) 2007 THE THOMSON CORPORATION  
PROCESSING COMPLETED FOR L21  
PROCESSING COMPLETED FOR L30  
L36 25 DUP REM L21 L30 (28 DUPLICATES REMOVED)  
ANSWERS '1-24' FROM FILE HCAPLUS  
ANSWER '25' FROM FILE WPIX

=> d ibib abs hitstr retable l36 tot

L36 ANSWER 1 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 1  
ACCESSION NUMBER: 2005:472005 HCAPLUS Full-text  
DOCUMENT NUMBER: 143:13254  
TITLE: Contrast agent  
INVENTOR(S): Cuthbertson, Alan; Solbakken, Magne  
; Lovhaug, Dagfinn  
PATENT ASSIGNEE(S): Amersham Health AS, Norway  
SOURCE: PCT Int. Appl., 30 pp.

CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005049095	A2	20050602	WO 2004-NO358	20041123 <--
WO 2005049095	A3	20060112		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1699494	A2	20060913	EP 2004-808852	20041123 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
US 2006193768	A1	20060831	US 2005-559880	20051207 <--
PRIORITY APPLN. INFO.:				
			NO 2003-5228	A 20031124 <--
			GB 2004-16062	A 20040719
			WO 2004-NO358	W 20041123

OTHER SOURCE(S): MARPAT 143:13254

AB A contrast agent of formula I: V - L - R (I) where V is an organic group having binding affinity for an angiotensin II receptor site, L is a linear or branched amino acid-comprising biomodifier or linker moiety, and R is a reporter moiety detectable in in vivo *imaging* of a human or animal body. Contrast agents targeting the AT1 receptor may be suitable for detecting diseases such as congestive heart failure, atherosclerosis, and fibrosis.

L36 ANSWER 2 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 2

ACCESSION NUMBER: 2005:471932 HCAPLUS Full-text  
 DOCUMENT NUMBER: 143:26884  
 TITLE: Preparation of radiolabeled sulfonamide hydroxamate matrix metalloproteinase inhibitors as *imaging* agents  
 INVENTOR(S): **Cuthbertson, Alan; Solbakken, Magne**  
 ; Bjurgert, Emma  
 PATENT ASSIGNEE(S): Amersham PLC, UK  
 SOURCE: PCT Int. Appl., 79 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005049005	A1	20050602	WO 2004-GB4792	20041112 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,				

NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,  
 TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
 EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO,  
 SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,  
 NE, SN, TD, TG

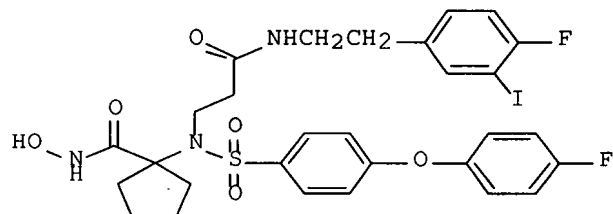
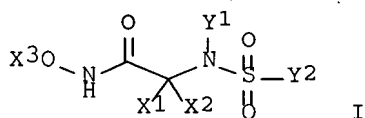
AU 2004290950 A1 20050602 AU 2004-290950 20041112 <--  
 CA 2545267 A1 20050602 CA 2004-2545267 20041112 <--  
 EP 1682113 A1 20060726 EP 2004-798512 20041112 <--

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS

BR 2004016528 A 20070109 BR 2004-16528 20041112 <--  
 CN 1901894 A 20070124 CN 2004-80040362 20041112 <--  
 NO 2006002118 A 20060511 NO 2006-2118 20060511 <--

PRIORITY APPLN. INFO.: GB 2003-26546 A 20031114 <--  
 WO 2004-GB4792 W 20041112

OTHER SOURCE(S): MARPAT 143:26884  
 GI



AB The present invention discloses that *imaging* agents I [Y1 = H, (CH<sub>2</sub>)<sub>n</sub>C(O)Z; n = 1-6; Z = OH, C1-6 alkoxy, C4-10 aryloxy, NR<sub>1</sub>R<sub>2</sub>; R<sub>1</sub>, R<sub>2</sub> = independently H, C1-6 alkyl, C3-6 cycloalkyl, C1-6 fluoroalkyl, C4-10 aryl; X1 and X2 form C3-10 cycloalkyl or heterocyclic ring; X3 = H, C1-3 alkyl, C1-3 fluoroalkyl; Y2 = AlpOqA2; p, q = 0-1; A1 = C1-10 alkylene, C3-8 cycloalkylene, C1-10 perfluoroalkylene, C6-10 arylene, C2-10 heteroarylene; A2 = H, C1-10 alkyl, C3-8 cycloalkyl, C1-10 perfluoroalkyl, C6-10 aryl, C2-10 heteroaryl] which comprise a specific type of matrix metalloproteinase inhibitors (MMPi's) of the sulfonamide hydroxamate class labeled with an *imaging* moiety, are useful diagnostic *imaging* agents for in vivo *imaging* and diagnosis of the mammalian body. Thus, sulfonamides II (R = iodo) and related compds. were prepared and studies for MMP receptor binding specificity. II and its iodine-123 analog were also studied for biodistribution in a LLC tumor model in vivo, as well as in a ApoE ligation model.

# RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Langley, K	2002			US 2002090654 A1	HCAPLUS

10566487

Mobashery, S	2002	US 2002037916 A1	HCAPLUS
Pfizer Products Inc	1999	EP 0895988 A	HCAPLUS
Storey, A	2004	WO 2004069365 A	

L36 ANSWER 3 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 3  
 ACCESSION NUMBER: 2005:426470 HCAPLUS Full-text  
 DOCUMENT NUMBER: 142:469186  
 TITLE: Conjugated angiotensin II analogs as *imaging* and therapeutic agents  
 INVENTOR(S): **Cuthbertson, Alan**; Indrevoll, Bard; Eriksen, Morten  
 PATENT ASSIGNEE(S): Amersham Health A/S, Norway  
 SOURCE: PCT Int. Appl., 37 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005044313	A2	20050519	WO 2004-NO335	20041105 <--
WO 2005044313	A3	20060511		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
EP 1699495	A2	20060913	EP 2004-800183	20041105 <--
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR, IS, YU			
CN 1901941	A	20070124	CN 2004-80039758	20041105 <--
PRIORITY APPLN. INFO.:			NO 2003-4952	A 20031106 <--
			GB 2004-16062	A 20040719
			WO 2004-NO335	W 20041105

OTHER SOURCE(S): MARPAT 142:469186

AB The invention comprises pharmaceuticals of formula (I) Z-(L)<sub>n</sub>-V, wherein V denotes a peptide, L denotes an optional linker, Z denotes a group that optionally can carry an *imaging* moiety M, n denotes 0 or 1. The pharmaceuticals are active as therapeutic agents for the treatment of heart failure, cardiac arrhythmias and diseases where fibrosis is prominent such as COPD, liver fibrosis and atherosclerosis and are also useful as diagnostic agents for the diagnosis of heart failure and diseases where fibrosis is prominent such as COPD, liver fibrosis and atherosclerosis.

L36 ANSWER 4 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 4  
 ACCESSION NUMBER: 2005:120957 HCAPLUS Full-text  
 DOCUMENT NUMBER: 142:219561  
 TITLE: Preparation of peptide-based compounds as diagnostic *imaging* agents  
 INVENTOR(S): **Cuthbertson, Alan**; **Solbakken, Magne**  
 PATENT ASSIGNEE(S): Amersham Health AS, Norway



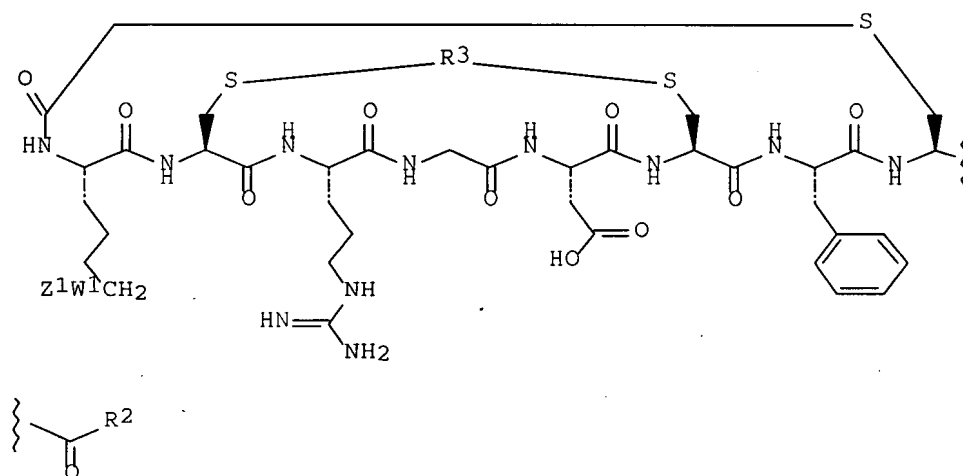
10566487

SOURCE: PCT Int. Appl., 40 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005012335	A1	20050210	WO 2004-GB3150	20040721 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, VZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2533321	A1	20050210	CA 2004-2533321	20040721 <--
EP 1648925	A1	20060426	EP 2004-743485	20040721 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1829735	A	20060906	CN 2004-80022044	20040721 <--
BR 2004012986	A	20061003	BR 2004-12986	20040721 <--
HU 200600230	A2	20070129	HU 2006-230	20040721 <--
US 2006193773	A1	20060831	US 2006-566487	20060130 <--
NO 2006000825	A	20060329	NO 2006-825	20060221 <--
PRIORITY APPLN. INFO.:			GB 2003-17815	A 20030730 <--
			WO 2004-GB3150	W 20040721

OTHER SOURCE(S): CASREACT 142:219561; MARPAT 142:219561

GI



I

AB The invention relates to compds. I [R2 is [NH(CH<sub>2</sub>CH<sub>2</sub>O)<sub>3</sub>CH<sub>2</sub>CH<sub>2</sub>NHCOCH<sub>2</sub>OCH<sub>2</sub>CO ]0-10NH<sub>2</sub>; R3 is an alkylene or alkenylene bridge; W1 is absent or a spacer moiety (hetero)hydrocarbonyl preferably derived from glutaric and/or succinic acid and/or a polyethylene glycol-based unit and/or a unit [NH(CH<sub>2</sub>CH<sub>2</sub>O)<sub>3</sub>CH<sub>2</sub>CH<sub>2</sub>NHCOCH<sub>2</sub>OCH<sub>2</sub>CO]<sub>n</sub>; Z1 is an antineoplastic agent, a chelating agent or a reporter moiety] and their use as targeting vectors that bind to receptors associated with angiogenesis. Compds. I may thus be used for diagnosis or therapy of various diseases. Thus, compound I [R2 is NH<sub>2</sub>, R3 is CH<sub>2</sub>, Z1-W1 is FCH<sub>2</sub>CH<sub>2</sub>SCH<sub>2</sub>CONH(CH<sub>2</sub>CH<sub>2</sub>O)<sub>5</sub>CH<sub>2</sub>CH<sub>2</sub>NHCOCH<sub>2</sub>OCH<sub>2</sub>CONH] was prepared via the solid-phase method and showed Ki = 7 nmol in an αvβ3 integrin receptor binding assay.

## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Bonasera, T	2002			WO 02062819 A	HCAPLUS
Harris, T	1996	6	1741	BIOORGANIC & MEDICIN	HCAPLUS
Indrevoll, B	2001			WO 0177145 A	HCAPLUS
Indrevoll, B	2003			WO 03006491 A	HCAPLUS
Lister-James, J	1999			US 5888474 A	HCAPLUS
Pearson, D	1996	39	1372	JOURNAL OF MEDICINAL	HCAPLUS
Srinivasan, A	2002			WO 0220610 A	HCAPLUS

L36 ANSWER 5 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 5

ACCESSION NUMBER: 2005:34777 HCAPLUS Full-text

DOCUMENT NUMBER: 142:130349

TITLE: Fluorescein-labeled peptides

INVENTOR(S): **Cuthbertson, Alan**; Indrevoll, Bard;  
**Solbakken, Magne**

PATENT ASSIGNEE(S): Amersham Health A/S, Norway

SOURCE: PCT Int. Appl., 43 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005003166	A1	20050113	WO 2004-NO208	20040707 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1639004	A1	20060329	EP 2004-748784	20040707 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1820025	A	20060816	CN 2004-80019515	20040707 <--
NO 2005006055	A	20060213	NO 2005-6055	20051219 <--
PRIORITY APPLN. INFO.:				
				NO 2003-3115 A 20030708 <--
				WO 2004-NO208 W 20040707

AB The invention relates to new peptide-based compds. and their use in diagnostic optical *imaging*. More specifically the invention relates to the use of such peptide-based compds. as targeting vectors that bind to receptors associated with angiogenesis. The compds. are labeled with fluorescein and may be used as contrast agents in optical *imaging* in diagnosis of angiogenesis-related diseases.

## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Cuthbertson, A	2002			WO 0226776 A	HCAPLUS
de Groot, F	2002	1	901	MOLECULAR CANCER THE	HCAPLUS
Hellebust, H	2002			US 2002102217 A1	HCAPLUS
Indrevoll, B	2001			WO 0177145 A	HCAPLUS
Katada, J	1997	272	7720	THE JOURNAL OF BIOLO	HCAPLUS
Riecke, B	2001	33	307	HORMONE AND METABOLI	HCAPLUS
Univ Leipzig	1999			DE 19808591 A	HCAPLUS

L36 ANSWER 6 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 6

ACCESSION NUMBER: 2004:610037 HCAPLUS Full-text

DOCUMENT NUMBER: 141:145687

TITLE: Contrast agents for *imaging* angiotensin II receptors

INVENTOR(S): **Solbakken, Magne**; Engell, Torgrim;  
Wadsworth, Harry John; Archer, Colin M.

PATENT ASSIGNEE(S): Amersham Health As, Norway

SOURCE: PCT Int. Appl., 31 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

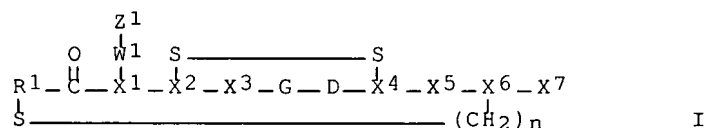
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004062568	A2	20040729	WO 2004-NO2	20040109 <--
WO 2004062568	A3	20040930		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ				
EP 1581262	A2	20051005	EP 2004-701136	20040109 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1723043	A	20060118	CN 2004-80001954	20040109 <--
JP 2006517539	T	20060727	JP 2006-500737	20040109 <--
IN 2005DN02527	A	20061229	IN 2005-DN2527	20050611 <--
US 2007020176	A1	20070125	US 2006-541949	20060607 <--
PRIORITY APPLN. INFO.:			NO 2003-115	A 20030109 <--
			WO 2004-NO2	W 20040109

OTHER SOURCE(S): MARPAT 141:145687

AB The present invention relates to contrast agents in which the targeting vector binds to angiotensin II receptors. The targeting vector, a receptor antagonist such as losartan, valsartan, candesartan or eprosartan, is conjugated via a spacer or linker to a moiety detectable in in vivo *imaging* procedures. The *imaging* moiety is a chelated radionuclide such as <sup>99m</sup>Tc. The *imaging* moiety may also consist of paramagnetic or fluorescent metal ions or other detectable species.

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003006491	A2	20030123	WO 2002-NO250	20020708 <--
WO 2003006491	A3	20031224		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, S, KG, KZ, MD, RU, TJ, TM, FI, FR, GB, GR, IE, IT, CG, CI, CM, GA, GN, GQ, C			
CA 2452923	A1	200301		8 <--
AU 2002313616	A1	200301		8 <--
EP 1404371	A2	200404		18 <--
R:	AT, BE, CH, DE, DK, ES, SI, LT, LV, FI, RO, MK, C			18 <--
BR 2002010886	A	200404		18 <--
HU 200400974	A2	200404		18 <--
JP 2005507376	T	200504		18 <--
CN 1622830	A	200504		18 <--
US 2005070466	A1	20050331	US 2004-753729	20040108 <--
NO 2004000084	A	20040309	NO 2004-84	20040109 <--
PRIORITY APPLN. INFO.:			GB 2001-16815	A 20010710 <--
			NO 2001-4954	A 20011011 <--
			WO 2002-NO250	W 20020708 <--

OTHER SOURCE(S) : MARPAT 138:122862  
GI



9

represents arginine, N-methylarginine or an arginine mimetic; X5 represents a hydrophobic amino acid or derivative; X6 represents a thiol-containing amino acid residue; X7 is absent or represents a biomodifier moiety; Z1 represents an antineoplastic agent, a chelating agent or a reporter moiety; W1 is absent or represents a spacer moiety] or pharmaceutically-acceptable salts were prepared for use as diagnostic *imaging* agents or as therapeutic agents which comprise targeting vectors which bind to integrin receptors. Thus, cyclo[CH<sub>2</sub>CO-Lys(cPn216- glutaryl)-Cys2-Arg-Gly-Asp-Cys6-Phe-Cys]-NH<sub>2</sub> disulfide (Cys2-6) [cPn216 is technetium chelate residue (HON:CMcMe2CH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>CHCH<sub>2</sub>CH<sub>2</sub>NH] was prepared via the solid-phase method.

L36 ANSWER 8 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 8  
 ACCESSION NUMBER: 2003:242904 HCAPLUS Full-text  
 DOCUMENT NUMBER: 139:328246  
 TITLE: Amphiphilic lipopeptide microparticles as contrast agents for medical ultrasound *imaging*  
 AUTHOR(S): Cuthbertson, Alan; Tornes, Audun; Solbakken, Magne; Moen, Ove; Eriksen, Morten  
 CORPORATE SOURCE: Dep. of Exploratory Res., Amersham Health AS, Oslo, Norway  
 SOURCE: Macromolecular Bioscience (2003), 3(1), 11-17  
 CODEN: MBAIBU; ISSN: 1616-5187  
 PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB In this study the authors investigated the utility of complementary amphiphilic lipopeptides as a new membrane formulation suitable for the preparation of gas-filled microbubbles. Through primarily ion pairing and hydrophobic interactions we rationalized that the stacking of synthetic lipopeptides into the surface of microbubbles would make bubble suspensions useful as ultrasound contrast agents. By mixing charged lipopeptides in propylene glycol/glycerol solns. in the presence of a perfluorocarbon gas followed by vigorous shaking, microbubble suspensions were formed in good yield with a size distribution spanning the range 1-7+10<sup>-6</sup> m. The microbubbles were studied in an in vivo model and provided *imaging* efficacy comparable with conventional ultrasound contrast agents.

## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
-----+-----+-----+-----+-----+-----					
Anon	1997			Ultrasound Contrast	
Atherton, E	1989			Solid Phase Synthesi	
Blomley, M	2001	322	1222	BMJ	MEDLINE
Bodansky, M	1994			The Practice of Pept	
Church, C	1995	97	1510	J Acoust Soc Am	
Cristiansen, C	1994	19	307	Biotechnol Appl Bioc	
Epstein, P	1950	18	1505	J Chem Phys	HCAPLUS
Fritz, T	1997	32	735	Invest Radiol	HCAPLUS
Fritzsche, T	1988	23	302	Invest Radiol	
Hoff, L	2001			Acoustic Characteriz	
Hoff, L	1996	2	1441	IEEE Ultrasonics Sym	
Hogg, J	1987	67	1249	Physiol Rev	HCAPLUS
Kamp, O	2001	22	1485	Eur Heart J	MEDLINE
Meltzer, R	1980	6	263	Ultrasound Med Biol	MEDLINE
Powers, J	2000	2	15	2nd Symp on Ultrasou	
Unger, E	1998	81	Sympo	Am J Cardiol	
Yang, E	1971	4	283	J Biomech	

L36 ANSWER 9 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 9  
 ACCESSION NUMBER: 2002:695821 HCAPLUS Full-text  
 DOCUMENT NUMBER: 137:237702  
 TITLE: Improved peptide-chelate conjugates  
 INVENTOR(S): **Cuthbertson, Alan**; Mendizabal, Marivi;  
 Dixon, Mark; Storey, Anthony Eamon  
 PATENT ASSIGNEE(S): Amersham PLC, UK  
 SOURCE: PCT Int. Appl., 50 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002070018	A2	20020912	WO 2002-GB857	20020301 <--
WO 2002070018	A3	20021205		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				
CO, CR, CU, CZ, DE, DK, DM, DZ, EG, EP, ES, FR, GB, GR, HU, ID, IL, IN, IS, JP,				
GM, HR, HU, ID, IL, IN, IS, JP,				
LS, LT, LU, LV, MA, MD, MG, MK,				
PL, PT, RO, RU, SD, SE, SG, SI,				
UA, UG, US, UZ, VN, YU, ZA, ZM,				
RW: GH, GM, KE, LS, MW, MZ, SD, SL,				
CY, DE, DK, ES, FI, FR, GB, GR,				
BF, BJ, CF, CG, CI, CM, GA, GN,				
CA 2439579	A1	20020912		
EP 1368064	A2	20031210		
R: AT, BE, CH, DE, DK, ES, FR, GB,				
IE, SI, LT, LV, FI, RO, MK, CY,				
JP 2004524323	T	20040812		
US 2006222593	A1	20061005	US 2004-469801	20041210 <--
PRIORITY APPLN. INFO.:			GB 2001-5224	A 20010302 <--
			WO 2002-GB857	W 20020301 <--

OTHER SOURCE(S): MARPAT 137:237702  
 AB A peptide-chelate conjugate with affinity for the ST receptor is disclosed, wherein the chelate is tetradentate. The peptide-chelate conjugate of the invention may be labeled with a radiometal to provide a metal complex. A radiopharmaceutical composition comprising the metal complex is provided, which is suitable for the diagnostic *imaging* of colorectal cancer. Also provided for in the invention is a kit for the preparation of the radiopharmaceutical preparation

L36 ANSWER 10 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 10  
 ACCESSION NUMBER: 2002:256296 HCAPLUS Full-text  
 DOCUMENT NUMBER: 136:263481  
 TITLE: Preparation of peptide-based compounds as diagnostic *imaging* agents  
 INVENTOR(S): **Cuthbertson, Alan**  
 PATENT ASSIGNEE(S): Nycomed Imaging AS, Norway; Amersham Health AS  
 SOURCE: PCT Int. Appl., 39 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

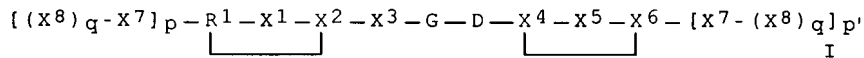
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
------------	------	------	-----------------	------

```

-----
WO 2002026776      A2      20020404      WO 2001-NO390      20010925 <--
WO 2002026776      A3      20030828
W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
    CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
    GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
    LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL,
    PT, RO, RU, SD, SE, SG, SI, SK, SL, SM, SN, ST, SV, SW, SY, SZ,
    US, UZ, VN, YU, ZA, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, S
    KZ, MD, RU, TJ, TM, AT, BE, C
    IE, IT, LU, MC, NL, PT, SE, T
    GQ, GW, ML, MR, NE, SN, TD, T
CA 2420577          A1      20020404      -
AU 2001092456       A5      20020408      -
EP 1358206          A2      20031105      -
R:  AT, BE, CH, DE, DK, ES, FR, G
    IE, SI, LT, LV, FI, RO, MK, C
JP 2004509975       T      20040402      -
NO 2003001323       A      20030324      -
US 2003176639       A1      20030918      US 2003-395500      20030324 <--
PRIORITY APPLN. INFO.:      NO 2000-4795      A 20000926 <--
                                US 2001-259919P      P 20010105 <--
                                WO 2001-NO390      W 20010925 <--

OTHER SOURCE(S):      MARPAT 136:263481
GI

```



AB Peptide-based compds. I [G represents glycine; D represents aspartic acid; p, p' = 0, 1 and p + p' = 1; when p = 0 then R<sup>1</sup> is (CH<sub>2</sub>)<sub>n</sub>CO or (CH<sub>2</sub>)<sub>n</sub>C<sub>6</sub>H<sub>4</sub>CO, where n = 1-5, when p = 1 then R<sup>1</sup> is or one or more bridge-forming amino acids; X<sup>1</sup> = a bond or 1-5 amino acids, an amino acid derivatized with a carbohydrate moiety, an amino acid functionalized with a spacer or linker and/or a chelate binding or capable of binding a reporter suitable for in vivo *imaging*; X<sup>2</sup>, X<sup>4</sup> are cysteine, homocysteine or other amino acids capable of forming a cyclizing bond such as aspartic acid and lysine; X<sup>3</sup> is arginine, N-methylarginine, or an arginine mimetic; X<sup>5</sup> is a hydrophobic amino acid; X<sup>6</sup> is an amino acid capable of forming a cyclizing bond; X<sup>7</sup> is a bond or 1-10 amino acids or a spacer or linker, optionally allowing for labeling with multiple chelates as defined by X<sup>8</sup>, and optionally comprising one or more ethylene glycol units or any other spacer component; X<sup>8</sup> is a chelate binding to, or capable of binding, a metal radionuclide or any other reporter suitable for in vivo *imaging*, NH<sub>2</sub> or is absent; q is 0-8; one of the bridges (between R<sup>1</sup> and X<sup>2</sup> or between X<sup>4</sup> and X<sup>6</sup>) comprises a disulfide bond] were prepared for use in therapeutically effective treatments and as diagnostic *imaging* agents. More specifically, the invention relates to the use of such peptide-based compds. used as targeting vectors that bind to receptors associated with angiogenesis, in particular the αvβ3 integrin receptor. Synthesis and conjugation of peptide vector H-Ala-Cys-Asp-Cys-Arg-Gly-Asp-Cys-Phe-Cys-Gly-OH with disulfide bonds connecting Cys-2 and Cys-4 and Cys-8 and Cys-10 and technetium chelate-succinic acid intermediate [HON:CMcMe2NHCH<sub>2</sub>CH<sub>2</sub>]2NCH<sub>2</sub>CH<sub>2</sub>NHCOCH<sub>2</sub>CH<sub>2</sub> CO<sub>2</sub>H are described.

L36 ANSWER 11 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 11

ACCESSION NUMBER: 2002:386498 HCAPLUS Full-text

DOCUMENT NUMBER: 138:52011

TITLE: In vivo *imaging* of human colon cancer xenografts in immunodeficient mice using a guanylyl cyclase C-specific ligand

AUTHOR(S): Wolfe, Henry R.; Mendizabal, Marivi; Lleong, Elinor; Cuthbertson, Alan; Desai, Vinay; Pullan, Shirley; Fujii, Dennis K.; Morrison, Matthew; Pither, Richard; Waldman, Scott A.

CORPORATE SOURCE: Research and Development Department, Targeted Diagnostics and Therapeutics, Inc., West Chester, PA, 19380, USA

SOURCE: Journal of Nuclear Medicine (2002), 43(3), 392-399

CODEN: JNMEAQ; ISSN: 0161-5505

PUBLISHER: Society of Nuclear Medicine

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Guanylyl cyclase C (GC-C) is a transmembrane receptor expressed by human intestinal cells and primary and metastatic colorectal adenocarcinomas but not by extraintestinal tissues or tumors. The Escherichia coli heat-stable enterotoxin analog, STa (5-18), is a 14-amino acid peptide that selectively binds to the extracellular domain of GC-C with subnanomolar affinity. This study examined the utility of a radiolabeled conjugate of STa (5-18) to selectively target and image extraintestinal human colon cancer xenografts in vivo in nude mice. The STa conjugate, ethoxyethyl-mercaptoacetamidoadipoylglycylglycine-STa (5-18) (NC100586), was synthesized and labeled with <sup>99m</sup>Tc to produce <sup>99m</sup>Tc-NC100586. This compound was i.v. administered to nude mice bearing human colon cancer xenografts, and specific targeting was evaluated by biodistribution and gamma camera *imaging*. In CD-1 nude mice, biodistribution and scintigraphic *imaging* analyses showed selective uptake of <sup>99m</sup>Tc-NC100586 into human colon cancer xenografts that express GC-C but not into normal tissues that do not express GC-C. Similarly, <sup>99m</sup>Tc-NC100586 injected i.v. into CD-1 nude mice with human colon cancer hepatic metastases selectively accumulated in those metastases, and approx.5-mm foci of tumor cells were visualized after ex vivo *imaging* of excised livers. Accumulation of <sup>99m</sup>Tc-NC100586 in human colon cancer xenografts reflected binding to GC-C because <sup>99m</sup>Tc-NC100588, an inactive analog that does not bind to GC-C, did not selectively accumulate in cancer xenografts compared with normal tissues. Also, coadministration of excess unlabeled STa (5-18) prevented accumulation of <sup>99m</sup>Tc-NC100586 in human colon cancer xenografts. Furthermore, <sup>99m</sup>Tc-NC100586 did not selectively accumulate in Lewis lung tumor xenografts, which do not express GC-C. This study showed that i.v. administered STa (5-18) selectively recognizes and binds to GC-C expressed by human colon cancer cells in vivo. Also shown was the ability to exploit this selective interaction to target *imaging* agents to extraintestinal human colon tumors in nude mice. These results suggest the utility of STa and GC-C for the development of novel targeted *imaging* and therapeutic agents with high specificity for metastatic colorectal tumors in humans.

## RETABLe

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Almenoff, J	1993	8	865	Mol Microbiol	HCAPLUS
Barany, G	1993	85	106	Int J Pept Protein R	
Blend, M	1998	16	431	Cancer Invest	MEDLINE
Bustin, S	1999	79	1813	Br J Cancer	MEDLINE
Cagir, B	1999	131	805	Ann Intern Med	HCAPLUS



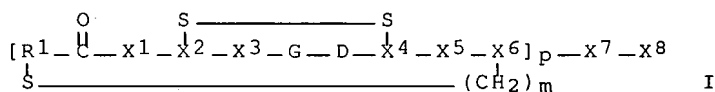
Carrithers, S	1996	39	171	Dis Colon Rectum	MEDLINE
Carrithers, S	1994	107	1653	Gastroenterology	MEDLINE
Carrithers, S	1996	93	14827	Proc Natl Acad Sci	HCAPLUS
Cohen, M	1988	94	367	Gastroenterology	MEDLINE
Cuthbertson, A	2000	41	3661	Tetrahedron Lett	HCAPLUS
Deshmane, S	1997	36	12921	Biochemistry	HCAPLUS
Erlichmann, C	1994	13	A562	Proc Am Soc Clin Onc	
Field, M	1978	75	2800	Proc Natl Acad Sci	HCAPLUS
Gariepy, J	1987	84	8907	Proc Nat Acad Sci	HCAPLUS
Gelmann, A	2000	1	737	Expert Opin Pharmacol	HCAPLUS
Gold, R	1988	36	1	Drugs	
Granowska, M	1993	20	691	Eur J Nucl Med	
Greenlee, R	2000	50	7	CA Cancer J Clin	MEDLINE
Guarino, A	1987	32	1017	Dig Dis Sci	HCAPLUS
Guerrant, R	1980	142	220	J Infect Dis	HCAPLUS
Hughes, J	1978	271	755	Nature	HCAPLUS
Hughes, M	1991	30	10738	Biochemistry	HCAPLUS
Ikemura, H	1984	57	2550	Bull Chem Soc	HCAPLUS
Kasina, S	1998	9	108	Bioconjug Chem	HCAPLUS
Krause, B	1998	24	72	Eur J Nucl Med	
Liu, S	1997	8	621	Bioconjug Chem	HCAPLUS
Mayer, R	1992	67	454	Proc Royal Soc Med	
Murakami, H	1980	77	3464	Proc Nat Acad Sci	HCAPLUS
Ohlsson, B	1993	159	275	Eur J Surg	MEDLINE
Raderer, M	1998	39	1570	J Nucl Med	HCAPLUS
Rao, M	1980	632	35	Biochim Biophys Acta	HCAPLUS
Shapiro, S	1992	75	1252	Cancer	
Smart, C	1992	75	1246	Cancer	
Stahl, W	1995	38	2799	J Med Chem	HCAPLUS
Taddei-Peters, W	1992	52	2603	Cancer Res	HCAPLUS
Urbanski, R	1995	1245	29	Biochim Biophys Acta	HCAPLUS
Valk, P	1999	134	503	Arch Surg	MEDLINE
Waldman, S	1998	41	310	Dis Colon Rectum	MEDLINE
Weinberg, D	2000	11	1	Semin Gastrointest D	
Yamasaki, S	1990	63	2063	Bull Chem Soc	HCAPLUS

L36 ANSWER 12 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 12  
 ACCESSION NUMBER: 2001:763033 HCAPLUS Full-text  
 DOCUMENT NUMBER: 135:318716  
 TITLE: Preparation of peptide-based compounds as diagnostic  
*imaging* agents  
 INVENTOR(S): Cuthbertson, Alan; Indrevoll, Bard  
 PATENT ASSIGNEE(S): Nycomed Imaging AS, Norway  
 SOURCE: PCT Int. Appl., 63 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001077145	A2	20011018	WO 2001-NO146	20010406 <--
WO 2001077145	A3	20020510		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,  
 CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,  
 HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,  
 LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,  
 SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,  
 YU, ZA, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL  
 DE, DK, ES, FI, FR, GB, GR, IE  
 BJ, CF, CG, CI, CM, GA, GN, GW  
 CA 2405469 A1 20011018  
 EP 1272507 A2 20030108  
 EP 1272507 B1 20050629  
 R: AT, BE, CH, DE, DK, ES, FR, GB  
 IE, SI, LT, LV, FI, RO, MK, CY  
 JP 2003531835 T 20031028  
 NZ 521735 A 20041224  
 AT 298763 T 20050715  
 PT 1272507 T 20051130  
 ES 2244607 T3 20051216  
 US 2003204049 A1 20031030 US 2002-269575 20021011 <--  
 PRIORITY APPLN. INFO.: GB 2000-9042 A 20000412 <--  
 US 2000-211337P P 20000613 <--  
 GB 2000-25070 A 20001012 <--  
 WO 2001-NO146 W 20010406 <--  
 OTHER SOURCE(S): MARPAT 135:318716  
 GI



AB Peptide-based compds. I [G represents glycine; D represents aspartic acid; R1 = (CH<sub>2</sub>)<sub>n</sub> or (CH<sub>2</sub>)<sub>n</sub>C<sub>6</sub>H<sub>4</sub> (n = 1-10), m = 1 or 2; p = 1-10; X1 represents a bond or 1-5 amino acid residues which can independently be derivatized with a functional side chain suitable for modifying pharmacokinetics or blood clearance rates and can bind a reporter (R) moiety suitable for in vivo *imaging* via a linker (L) moiety, a chelating agent or an L moiety attached to a chelating agent; X2, X4 represent an amino acid residue capable of forming a disulfide bond; X3 represents arginine, N-methylarginine or an arginine mimetic; X5 represents a hydrophobic amino acid or derivative; X6 represents a thiol-containing amino acid residue; X7 represents an L moiety or 1-10 amino acid residues, optionally as part of an L moiety, with the properties of X1; X7 is absent; X8 represents an R moiety or NH<sub>2</sub> or is absent] or pharmaceutically acceptable salts were prepared for use as diagnostic *imaging* agents or as therapeutic agents which comprise a targeting vector which binds to receptors associated with integrin receptors. Thus, [Cys2-6]cyclo[CH<sub>2</sub>CONH-Asp-Cys-Arg-Gly-Asp- Cys-Phe-Cys]-Gly-NH(CH<sub>2</sub>CH<sub>2</sub>O)<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>NHCO(CH<sub>2</sub>)<sub>3</sub>CH(NHCOCH<sub>2</sub>SCHMeOEt)CO-Gly-Gly- OH (VIa) was prepared by solid-phase peptide coupling, cyclization, deprotection, and conjugation with N3S-adipate chelator active ester. Compd.VIa was labeled with technetium.

L36 ANSWER 13 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 13  
 ACCESSION NUMBER: 2001:519335 HCAPLUS Full-text  
 DOCUMENT NUMBER: 135:111977  
 TITLE: Diagnostic/therapeutic agents having phospholipid-based microbubbles coupled to one or more vectors  
 INVENTOR(S): Klaveness, Jo; Rongved, Pal; Hogset, Anders; Tolleshaug, Helge; Naevestad, Anne; Hellebust,

Halldis; Hoff, Lars; *Cuthbertson, Alan*;  
 Lovhaug, Dagfinn; *Solbakken, Magne*  
 PATENT ASSIGNEE(S): Nycomed Imaging As, Norway  
 SOURCE: U.S., 89 pp., Cont.-in-part of U.S. Ser. No. 958,993.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 10  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6261537	B1	20010717	US 1997-960054	19971029 <--
CN 1234742	A	19991110	CN 1997-199047	19971028 <--
HU 9904595	A2	20000428	HU 1999-4595	19971028 <--
US 6331289	B1	20011218	US 1997-959206	19971028 <--
AT 318618	T	20060315	AT 1997-910514	19971028 <--
EP 1442751	A1	20040804	EP 2004-7226	19980424 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
ES 2224379	T3	20050301	ES 1998-917461	19980424 <--
KR 2000052829	A	20000825	KR 1999-703658	19990427 <--
US 2002102215	A1	20020801	US 2001-765614	20010122 <--
US 2002102217	A1	20020801	US 2001-925715	20010810 <--
US 6680047	B2	20040120		
CN 1440816	A	20030910	CN 2002-160420	20021230 <--
US 2004141922	A1	20040722	US 2003-722075	20031126 <--
US 2005002865	A1	20050106	US 2003-734730	20031215 <--
US 2007036722	A1	20070215	US 2006-498651	20060803 <--
PRIORITY APPLN. INFO.:				
			GB 1996-22366	A 19961028 <--
			GB 1996-22367	A 19961028 <--
			GB 1996-22368	A 19961028 <--
			GB 1997-699	A 19970115 <--
			GB 1997-8265	A 19970424 <--
			GB 1997-11842	A 19970606 <--
			GB 1997-11846	A 19970606 <--
			US 1997-49264P	P 19970606 <--
			US 1997-49265P	P 19970606 <--
			US 1997-49268P	P 19970606 <--
			US 1997-958993	A2 19971028 <--
			GB 1996-22369	A 19961028 <--
			GB 1997-2195	A 19970204 <--
			GB 1997-11837	A 19970606 <--
			GB 1997-11839	A 19970606 <--
			US 1997-49263P	P 19970607 <--
			US 1997-49266P	P 19970607 <--
			US 1997-959206	A 19971028 <--
			US 1997-960054	A1 19971029 <--
			EP 1998-917461	A3 19980424 <--
			US 2001-765614	B1 20010122 <--
			US 2001-925715	A1 20010810 <--
			US 2003-722075	A2 20031126 <--

AB Targetable diagnostic and/or therapeutically active agents, e.g. ultrasound contrast agents, having reporters comprise gas-filled microbubbles stabilized by monolayers of film-forming surfactants, the reporter being coupled or linked to at least one vector. The gas is air, nitrogen, oxygen, carbon dioxide, hydrogen, an inert gas, a sulfur fluoride, selenium hexafluoride, a low mol. weight hydrocarbon, a ketone, an ester, a halogenated low mol. weight hydrocarbon or their mixts. The film-forming surfactant material is one or more phospholipids selected from the group consisting of phosphatidylserines,

phosphatidylglycerols, phosphatidylinositols, phosphatidic acids and cardiolipins. A therapeutic agent is an antineoplastic agent, blood product, biol. response modifier, antifungal agent, hormone or hormone analog, vitamin, enzyme, antiallergic agent, tissue factor inhibitor, platelet inhibitor, coagulation protein target inhibitor, fibrin formation inhibitor, fibrinolysis promoter, antiangiogenic, circulatory drug, metabolic potentiator, antitubercular, antiviral, vasodilator, antibiotic, anti-inflammatory, antiprotozoal, antirheumatic, narcotic, opiate, cardiac glycoside, neuromuscular blocker, sedative, local anesthetic, general anesthetic or genetic material. For example, an endothelial cell adhesion of phosphatidylserine-encapsulated perfluorobutane microbubbles coated with polylysine was higher than adhesion of uncoated microbubbles. Also, a thrombus was detected by ultrasound in patients with suspected venous thrombosis using i.v. phosphatidylserine-encapsulated microbubbles. The microbubbles contained inactivated human thrombin-succinyl-PEG 3400-distearoylphosphatidylethanol amine incorporated into the encapsulating membrane.

## RETABLE:

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
=====	=====	=====	=====	=====	=====
Anon	1991			WO 9115244	HCAPLUS
Anon	1993			WO 9320802	HCAPLUS
Anon	1994			CA 2145505	HCAPLUS
Anon	1994			WO 9407539	HCAPLUS
Anon	1994			WO 9428873	HCAPLUS
Anon	1994			WO 9428874	HCAPLUS
Anon	1995			WO 9503356	HCAPLUS
Anon	1995			WO 9503357	HCAPLUS
Anon	1995			WO 9507072	HCAPLUS
Anon	1995			WO 9515118	HCAPLUS
Anon	1996			EP 0727225	HCAPLUS
Anon	1996			US 08640464	
Anon	1996			WO 9639149	HCAPLUS
Anon	1996			WO 9640277	HCAPLUS
Anon	1996			WO 9640285	HCAPLUS
Anon	1996			WO 9641617	HCAPLUS
Anon	1997			WO 9723855	
Anon	1997			WO 9733474	HCAPLUS
Anon	1997			WO 9741898	HCAPLUS
Anon	1998			DE 19626530	HCAPLUS
Anon	1998			WO 9800172	HCAPLUS
Anon	1998			WO 9804293	HCAPLUS
Anon	1998			WO 9819705	HCAPLUS
Anon	1998			WO 9820856	HCAPLUS
Anon	1998			WO 9842384	HCAPLUS
Elmaleh	1998			US 5716594	HCAPLUS
Friden	1992			US 5154924	HCAPLUS
Grinstaff	1996			US 5505932	
Grinstaff	1997			US 5650156	HCAPLUS
Grinstaff	1997			US 5665383	HCAPLUS
Klibanov	1997	38	113	Acta Radiologica	
Lanza	1997			US 5612057	HCAPLUS
Lanza	1997			US 5690907	HCAPLUS
Lanza	1998			US 5780010	
Matsueda	1990			US 4927916	HCAPLUS
McEver	1993			US 5198424	HCAPLUS
Muzykantov	1994	35	1358	J Nuclear Medicine	MEDLINE
Porter	1998			US 5849727	HCAPLUS
Schneider	1997			US 5643553	

Tait	1997	US 5632983	HCAPLUS
Thomas, F	1999	Microparticle Prepar	
Torchilin	1996	US 5534241	
Tournier	1999	US 5910300	HCAPLUS
Unger	1997	US 5656211	HCAPLUS
Unger	1998	US 5733572	HCAPLUS
Unger	1998	US 5846517	HCAPLUS
Woodle	1991	US 5013556	HCAPLUS
Woodle	1994	US 5356633	HCAPLUS
Worthington Biochemical	1972	Worthington Enzyme M	

L36 ANSWER 14 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 14

ACCESSION NUMBER: 2000:253997 HCAPLUS Full-text

DOCUMENT NUMBER: 132:284295

TITLE: Contrast agents

INVENTOR(S): Klaveness, Jo; Naevestad, Anne; Cuthbertson, Alan; Solbakken, Magne

PATENT ASSIGNEE(S): Nycomed Imaging As, Norway

SOURCE: U.S., 31 pp., Cont.-in-part of PCT 9818497.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 10

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6051207	A	20000418	US 1999-300436	19990428 <--
US 6331289	B1	20011218	US 1997-959206	19971028 <--
ES 2206689	T3	20040516	ES 1997-910517	19971028 <--
US 2002102217	A1	20020801	US 2001-925715	20010810 <--
US 6680047	B2	20040120		
US 2005002865	A1	20050106	US 2003-734730	20031215 <--
PRIORITY APPLN. INFO.:			GB 1996-22364	A 19961028 <--
			GB 1996-22365	A 19961028 <--
			GB 1996-22366	A 19961028 <--
			GB 1996-22367	A 19961028 <--
			GB 1996-22368	A 19961028 <--
			GB 1996-22369	A 19961028 <--
			GB 1997-699	A 19970115 <--
			GB 1997-2195	A 19970204 <--
			GB 1997-9088	A 19970502 <--
			US 1997-48054P	P 19970530 <--
			WO 1997-GB2657	A2 19971028 <--
			GB 1997-8265	A 19970424 <--
			GB 1997-11837	A 19970606 <--
			GB 1997-11839	A 19970606 <--
			US 1997-49264P	P 19970606 <--
			US 1997-49263P	P 19970607 <--
			US 1997-49266P	P 19970607 <--
			US 1997-959206	A 19971028 <--
			US 2001-925715	A1 20010810 <--

OTHER SOURCE(S): MARPAT 132:284295

AB The invention provides a composition containing compds. with a nonpeptide organic group having binding affinity for an endothelin receptor site, a linker moiety or a bond, and a moiety detectable in vivo *imaging* of a human or animal body. This composition of matter may be used to image diseases and disorders, particularly of the cardiovascular system. A compound was prepared from lysine and 27-O-3-[2-(3-carboxyacryloylamino)-5-

hydroxyphenyl]acryloyloxymycone and the resulting compound treated with DTPA dianhydride to give a compound which was chelated with Gd or <sup>99m</sup>Tc.

## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
=====	-----	-----	-----	=====	=====
Anon	1991			WO 9115244	HCAPLUS
Anon	1994			EP 0606683	HCAPLUS
Anon	1994			CA 2156620	HCAPLUS
Anon	1994			DE 4311023	HCAPLUS
Anon	1994			AU B-5314694	
Anon	1996				HCAPLUS
Anon	1996			DE 19503644	
Anon	1996			CA 2211364	HCAPLUS
Anon	1997			DE 19536781	HCAPLUS
Anon	1997			DE 19536785	HCAPLUS
Chan	1994	201	228	Biochem Biophys Res	MEDLINE
Us National Library Of				Database Medline	

L36 ANSWER 15 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 15  
 ACCESSION NUMBER: 1999:708651 HCAPLUS Full-text  
 DOCUMENT NUMBER: 131:319900  
 TITLE: Diagnostic/therapeutic agents comprising  
 membrane-forming amphiphilic lipopeptide-stabilized  
 gas microbubbles  
 INVENTOR(S): *Cuthbertson, Alan; Solbakken, Magne*  
 ; Wolfe, Henry Raphael  
 PATENT ASSIGNEE(S): Marsden, John Christopher, UK; Nycomed Imaging A/S  
 SOURCE: PCT Int. Appl., 59 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
WO 9955383	A2	19991104	WO 1999-GB1247	19990422 <--
WO 9955383	A3	20000706		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,				
DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,				
JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,				
MN, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,				
VN, YU, ZA				
SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,				
IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,				
MR, NE, SN, TD, TG				
104			CA 1999-2329778	19990422 <--
207			EP 1999-918154	19990422 <--
FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				
508			JP 2000-545579	19990422 <--
116			AU 1999-36187	19990423 <--
717				
715			IN 2000-MN523	20001019 <--
507			ZA 2000-5952	20001024 <--
US 6548048	B1	20030415	US 2000-695273	20001025 <--
NO 2000005382	A	20001218	NO 2000-5382	20001026 <--
PRIORITY APPLN. INFO.:				
			GB 1998-9084	A 19980428 <--
			WO 1999-GB1247	W 19990422 <--

AB Novel membrane-forming amphiphilic lipopeptides comprise one or more peptide moieties containing 2-50 aminoacyl residues and one or more hydrocarbon chains containing 5-50 carbon atoms. Such lipopeptides may be used in the formation of stabilized gas microbubble dispersions suitable for use as diagnostic and/or therapeutic agents, for example as ultrasound contrast agents. Perfluorobutane-containing microbubbles were prepared that used N-[3-(2-aminoethanamido)-5-[2-(n-hexadecyl)octadecanamido]benzoyl]glycine (preparation given) as the membrane-forming agent.

L36 ANSWER 16 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 16

ACCESSION NUMBER: 1999:690991 HCAPLUS Full-text

DOCUMENT NUMBER: 131:308623

TITLE: Ultrasound *imaging* contrast agents,

particularly for perfusion in the myocardium

INVENTOR(S): Eriksen, Morten; Tolleshaug, Helge; Skurtveit, Roald;

Cuthbertson, Alan; Ostensen, Jonny; Frigstad,

Sigmund; Rongved, Pal

PATENT ASSIGNEE(S): Marsden, John Christopher, UK; Nycomed Imaging AS

SOURCE: PCT Int. Appl., 80 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9953963	A1	19991028	WO 1999-GB1221	19990422 <--
W:				
AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,				
DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,				
JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,				
MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,				
TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW:				
GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,				
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,				
CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2329175	A1	19991028	CA 1999-2329175	19990422 <--
AU 9936172	A	19991108	AU 1999-36172	19990422 <--
BR 9909822	A	20001219	BR 1999-9822	19990422 <--
EP 1073473	A1	20010207	EP 1999-918133	19990422 <--
R:				
AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				
IE, FI				
HU 200102878	A2	20020328	HU 2001-2878	19990422 <--
JP 2002512206	T	20020423	JP 2000-544366	19990422 <--
IN 2000MN00503	A	20050715	IN 2000-MN503	20001011 <--
ZA 2000005789	A	20010730	ZA 2000-5789	20001018 <--
NO 2000005250	A	20001218	NO 2000-5250	20001019 <--
US 2004146462	A1	20040729	US 2003-717196	20031119 <--
PRIORITY APPLN. INFO.:			GB 1998-8599	A 19980422 <--
			US 1998-84880P	P 19980508 <--
			WO 1999-GB1221	W 19990422 <--
			US 2000-693836	B1 20001023 <--

AB Ultrasonic visualization of a subject, particularly of perfusion in the myocardium and other tissues, is performed using novel gas-containing contrast agent preps. which promote controllable and temporary growth of the gas phase in vivo following administration and can therefore act as deposited perfusion tracers. The preps. comprise an injectable aqueous medium comprising dispersed gas and an injectable oil-in-water emulsion in which the oil phase comprises a diffusible component capable of diffusion in vivo into the

dispersed gas to promote temporary growth thereof, such that material present at the surfaces of the dispersed gas phase and material present at the surfaces of the dispersed oil phase have affinity for each other, e.g. as a result of having opposite charges. In cardiac perfusion *imaging* the preps. may advantageously be coadministered with vasodilator drugs such as adenosine in order to enhance the differences between return signal intensity from normal and hypoperfused myocardial tissue resp. A neg.-charged perfluorobutane gas dispersion and a pos.-charged perfluorodimethylcyclobutane emulsion were simultaneously injected i.v. into a dog. The resulting myocardial contrast effect was far more intense than that observed when the dispersion and emulsion were both neg.-charged. The contrast lasted for 20 min.

## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
=====	=====	=====	=====	=====	=====
Caminati, G	1998	327-3	37	THIN SOLID FILMS	HCAPLUS
Cockbain Julian	1998			WO 9818497 A	HCAPLUS
Epand, R	1997	43	15	BIOPHYSICAL STUDIES	HCAPLUS
Imarx Pharmaceutical Co	1997			WO 9740858 A	HCAPLUS
Iskandrian, A	1994	1	94	JOURNAL OF NUCLEAR C	MEDLINE
Maletinska, L	1996	79	2023	HELV CHIM ACTA	HCAPLUS
Maletinska, L	1997	43	3271	J MED CHEM	
Marsden John Christophe	1998			WO 9818495 A	HCAPLUS
Marsden John Christophe	1998			WO 9818498 A	HCAPLUS
Ono, S	1992	597	293	JOURNAL OF CHROMATOG	
Porter, T	1997	96	L-401	CIRCULATION	
Shehata, A	1997	80	716	AMERICAN JOURNAL OF	HCAPLUS
Unger, E	1993			US 5228446 A	HCAPLUS
Varadarajan, R	1996			US 5580575 A	HCAPLUS

L36 ANSWER 17 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 17

ACCESSION NUMBER: 1998:300865 HCAPLUS Full-text

DOCUMENT NUMBER: 129:4871

TITLE: Preparation of targetable diagnostic and therapeutic gas-containing or gas-generating ultrasound contrast agents

INVENTOR(S): Klaveness, Jo; Rongved, Pal; Hogset, Anders; Tolleshaug, Helge; *Cuthbertson, Alan*; et al.

PATENT ASSIGNEE(S): Marsden, John Christopher, UK; Nycomed Imaging AS

SOURCE: PCT Int. Appl., 150 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 10

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
WO 9818500	A2	19980507	WO 1997-GB2953	19971028 <--
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2269985	A1	19980507	CA 1997-2269985	19971028 <--
AU 9747182	A	19980522	AU 1997-47182	19971028 <--



AU 733477	B2	20010517		
CN 1238700	A	19991215	CN 1997-180164	19971028 <--
BR 9713978	A	20000502	BR 1997-13978	19971028 <--
EP 1007101	A2	20000614	EP 1997-909512	19971028 <--
EP 1007101	B1	20060517		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
HU 200000357	A2	20000628	HU 2000-357	19971028 <--
NZ 335799	A	20001124	NZ 1997-335799	19971028 <--
JP 2001511765	T	20010814	JP 1998-520186	19971028 <--
US 6331289	B1	20011218	US 1997-959206	19971028 <--
AT 326242	T	20060615	AT 1997-909512	19971028 <--
EP 1442751	A1	20040804	EP 2004-7226	19980424 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
ES 2224379	T3	20050301	ES 1998-917461	19980424 <--
NO 9901890	A	19990628	NO 1999-1890	19990421 <--
MX 9903867	A	20000531	MX 1999-3867	19990426 <--
KR 2000052830	A	20000825	KR 1999-703659	19990427 <--
US 2002102217	A1	20020801	US 2001-925715	20010810 <--
US 6680047	B2	20040120		
US 2005002865	A1	20050106	US 2003-734730	20031215 <--
PRIORITY APPLN. INFO.:			GB 1996-22366	A 19961028 <--
			GB 1996-22369	A 19961028 <--
			GB 1997-2195	A 19970204 <--
			GB 1997-8265	A 19970424 <--
			GB 1997-11837	A 19970606 <--
			GB 1997-11839	A 19970606 <--
			US 1996-49263P	P 19970606 <--
			US 1996-49264P	P 19970606 <--
			US 1996-49266P	P 19970606 <--
			US 1997-49264P	P 19970606 <--
			US 1997-49263P	P 19970607 <--
			US 1997-49266P	P 19970607 <--
			US 1997-959206	A 19971028 <--
			WO 1997-GB2953	W 19971028 <--
			EP 1998-917461	A3 19980424 <--
			US 2001-925715	A1 20010810 <--

AB Targetable diagnostic and/or therapeutically active agents, e.g. ultrasound contrast agents, comprising a suspension in an aqueous carrier liquid of a reporter comprising gas-containing or gas-generated material, in which the reporter is coupled or linked to one or more non-bioactive vectors. Thus, lipopeptide R-Lys(R)-Lys-Arg-Lys-Arg-Trp-Glu-Pro-Pro-Arg-Ala-Arg-Ile- OH (I; R = hexadecanoyl) (preparation given) containing a heparin binding site and a fibronectin binding site, was prepared by standard solid-phase methods. Microbubbles containing lipopeptide I were tested in vitro for binding to endothelial cells under flow conditions.

L36 ANSWER 18 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 18  
 ACCESSION NUMBER: 1998:300864 HCAPLUS Full-text  
 DOCUMENT NUMBER: 129:4870  
 TITLE: Preparation of targetable diagnostic and therapeutic ultrasound contrast agents  
 INVENTOR(S): Klaveness, Jo; Rongved, Pal; Hogset, Anders; Tolleshaug, Helge; Godal, Aslak; *Cuthbertson, Alan*; et al.  
 PATENT ASSIGNEE(S): Marsdan, John Christopher, UK; Nycomed Imaging AS  
 SOURCE: PCT Int. Appl., 140 pp.  
 CODEN: PIXXD2

DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 10  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9818498	A2	19980507	WO 1997-GB2958	19971028 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT				
EP 963209	A2	19991215	EP 1997-910518	19971028 <--
RW: DE, ES, FR, GB, IT				
HU 9904595	A2	20000428	HU 1999-4595	19971028 <--
US 6331289	B1	20011218	US 1997-959206	19971028 <--
EP 1442751	A1	20040804	EP 2004-7226	19980424 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
ES 2224379	T3	20050301	ES 1998-917461	19980424 <--
US 2002102217	A1	20020801	US 2001-925715	20010810 <--
US 6680047	B2	20040120		
US 2005002865	A1	20050106	US 2003-734730	20031215 <--
PRIORITY APPLN. INFO.:				
			GB 1996-22364	A 19961028 <--
			GB 1996-22366	A 19961028 <--
			GB 1996-22367	A 19961028 <--
			GB 1997-698	A 19970115 <--
			GB 1997-699	A 19970115 <--
			GB 1997-8265	A 19970424 <--
			GB 1997-11842	A 19970606 <--
			GB 1997-11844	A 19970606 <--
			US 1997-49264P	P 19970606 <--
			GB 1996-22369	A 19961028 <--
			GB 1997-2195	A 19970204 <--
			GB 1997-11837	A 19970606 <--
			GB 1997-11839	A 19970606 <--
			US 1997-49263P	P 19970607 <--
			US 1997-49266P	P 19970607 <--
			US 1997-959206	A 19971028 <--
			WO 1997-GB2958	W 19971028 <--
			EP 1998-917461	A3 19980424 <--
			US 2001-925715	A1 20010810 <--
AB	Targetable diagnostic and/or therapeutically active agents, e.g. ultrasound contrast agents, comprising a suspension in an aqueous carrier liquid of a reporter comprising gas-containing or gas-generated material, in which the reporter is coupled or linked to one or more non-bioactive vectors. Thus, a mixture of phosphatidylserine, phosphatidylcholine, and biotinamidocaproate-PEG3400-L-Ala-cholesterol (preparation given) was dispersed in 5% propylene glycol-water, flushed with perfluorobutane, and sonicated to give gas-filled encapsulated microbubbles.			

L36 ANSWER 19 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 19  
 ACCESSION NUMBER: 1998:300863 HCAPLUS Full-text  
 DOCUMENT NUMBER: 129:4869  
 TITLE: Preparation of endothelin receptor-binding ultrasound contrast agents

10566487

INVENTOR(S): Klaveness, Jo; Naevestad, Anne; *Cuthbertson, Alan; Solbakken, Magne*

PATENT ASSIGNEE(S): Nycomed Imaging AS, Norway; Cockbain, Julian

SOURCE: PCT Int. Appl., 98 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 10

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9818497	A2	19980507	WO 1997-GB2957	19971028 <--
WO 9818497	A3	19980716		
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9747869	A	19980522	AU 1997-47869	19971028 <--
EP 946202	A2	19991006	EP 1997-910517	19971028 <--
EP 946202	B1	20030910		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 6331289	B1	20011218	US 1997-959206	19971028 <--
AT 249247	T	20030915	AT 1997-910517	19971028 <--
ES 2206689	T3	20040516	ES 1997-910517	19971028 <--
US 2002102217	A1	20020801	US 2001-925715	20010810 <--
US 6680047	B2	20040120		
US 2005002865	A1	20050106	US 2003-734730	20031215 <--
PRIORITY APPLN. INFO.:				
			GB 1996-22364	A 19961028 <--
			GB 1996-22365	A 19961028 <--
			GB 1996-22366	A 19961028 <--
			GB 1996-22367	A 19961028 <--
			GB 1996-22368	A 19961028 <--
			GB 1996-22369	A 19961028 <--
			GB 1997-699	A 19970115 <--
			GB 1997-2195	A 19970204 <--
			GB 1997-9088	A 19970502 <--
			US 1997-48054P	P 19970530 <--
			GB 1997-8265	A 19970424 <--
			GB 1997-11837	A 19970606 <--
			GB 1997-11839	A 19970606 <--
			US 1997-49264P	P 19970606 <--
			US 1997-49263P	P 19970607 <--
			US 1997-49266P	P 19970607 <--
			US 1997-959206	A 19971028 <--
			WO 1997-GB2957	W 19971028 <--
			US 2001-925715	A1 20010810 <--

OTHER SOURCE(S): MARPAT 129:4869

AB Compns. of matter V-L-R (V is a non-peptidic organic group having binding affinity for an endothelin receptor site; L is a linker moiety or a bond; R is a moiety detectable in vivo *imaging* of a human or animal body) are described. Thus, syntheses of Gd(III) and Tc chelates of a DPTA conjugate of a lysine conjugate of 27-O-3-[2-(3-carboxyacryloylamino)-5-hydroxyphenyl]acryloyloxymyricerone are described.

L36 ANSWER 20 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 20  
 ACCESSION NUMBER: 1998:304262 HCAPLUS Full-text  
 DOCUMENT NUMBER: 129:2225  
 TITLE: Contrast agents  
 INVENTOR(S): Klaveness, Jo; Naevestad, Anne; Cuthbertson, Alan  
 PATENT ASSIGNEE(S): Nycomed Imaging A/S, Norway; Cockbain, Julian  
 SOURCE: PCT Int. Appl., 99 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 10  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9818496	A2	19980507	WO 1997-GB2956	19971028 <--
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9747868	A	19980522	AU 1997-47868	19971028 <--
EP 971747	A2	20000119	EP 1997-910516	19971028 <--
EP 971747	B1	20051228		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 6331289	B1	20011218	US 1997-959206	19971028 <--
AT 314097	T	20060115	AT 1997-910516	19971028 <--
ES 2257771	T3	20060801	ES 1997-910516	19971028 <--
US 6264914	B1	20010724	US 1999-300434	19990428 <--
US 2001016587	A1	20010823	US 2001-785177	20010220 <--
US 6524552	B2	20030225		
US 2002102217	A1	20020801	US 2001-925715	20010810 <--
US 6680047	B2	20040120		
US 2003228254	A1	20031211	US 2003-370092	20030221 <--
US 6921525	B2	20050726		
US 2005002865	A1	20050106	US 2003-734730	20031215 <--
US 2005201930	A1	20050915	US 2005-108598	20050418 <--
US 7182934	B2	20070227		
PRIORITY APPLN. INFO.:				
			GB 1996-22364	A 19961028 <--
			GB 1996-22365	A 19961028 <--
			GB 1996-22366	A 19961028 <--
			GB 1996-22367	A 19961028 <--
			GB 1996-22368	A 19961028 <--
			GB 1996-22369	A 19961028 <--
			GB 1997-699	A 19970115 <--
			GB 1997-2195	A 19970204 <--
			GB 1997-6063	A 19970324 <--
			US 1997-58247P	P 19970909 <--
			GB 1997-8265	A 19970424 <--
			GB 1997-11837	A 19970606 <--
			GB 1997-11839	A 19970606 <--
			US 1997-49264P	P 19970606 <--
			US 1997-49263P	P 19970607 <--
			US 1997-49266P	P 19970607 <--

US 1997-959206	A	19971028 <--
WO 1997-GB2956	W	19971028 <--
US 1999-300434	A3	19990428 <--
US 2001-785177	A3	20010220 <--
US 2001-925715	A1	20010810 <--
US 2003-370092	A3	20030221 <--

OTHER SOURCE(S): MARPAT 129:2225

AB The invention provides a composition of matter (I): V-L-R where V is an organic group having binding affinity for an angiotensin II receptor site, L is a linker moiety or a bond, and R is a moiety detectable in in vivo *imaging* of a human or animal body, with the provisos that where V is angiotensin or a peptidic angiotensin derivative or analog then V-L-R is other than a nonmetal radionuclide substituted peptide (e.g. 125I substituted angiotensin II) and L-V is other than simply a peptide with a chelating agent amide bonded to a side chain thereof. This composition of matter may be used to image cardiovascular diseases and disorders.

L36 ANSWER 21 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2007:173633 HCAPLUS Full-text

TITLE: Separation processes

INVENTOR(S): Rongved, Pal; Loevhaug, Dagfinn; Fjerdingsstad, Hege;  
**Solbakken, Magne**; Godal, Aslak;  
**Cuthbertson, Alan**

PATENT ASSIGNEE(S): Norway

SOURCE: U.S. Pat. Appl. Publ., 17pp., Cont.-in-part of U.S.  
 Ser. No. 722,075.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 10

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2007036722	A1	20070215	US 2006-498651	20060803 <--
CN 1234742	A	19991110	CN 1997-199047	19971028 <--
HU 9904595	A2	20000428	HU 1999-4595	19971028 <--
US 6331289	B1	20011218	US 1997-959206	19971028 <--
AT 318618	T	20060315	AT 1997-910514	19971028 <--
US 6261537	B1	20010717	US 1997-960054	19971029 <--
EP 1442751	A1	20040804	EP 2004-7226	19980424 <--

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, FI, CY

ES 2224379	T3	20050301	ES 1998-917461	19980424 <--
KR 2000052829	A	20000825	KR 1999-703658	19990427 <--
US 2002102215	A1	20020801	US 2001-765614	20010122 <--
US 2002102217	A1	20020801	US 2001-925715	20010810 <--
US 6680047	B2	20040120		
CN 1440816	A	20030910	CN 2002-160420	20021230 <--
US 2004141922	A1	20040722	US 2003-722075	20031126 <--
US 2005002865	A1	20050106	US 2003-734730	20031215 <--

PRIORITY APPLN. INFO.:

GB 1996-22366	A	19961028 <--
GB 1996-22367	A	19961028 <--
GB 1996-22368	A	19961028 <--
GB 1997-699	A	19970115 <--
GB 1997-8265	A	19970424 <--
GB 1997-11842	A	19970606 <--
GB 1997-11846	A	19970606 <--
US 1997-49264P	P	19970606 <--

US 1997-49265P	P	19970606 <--
US 1997-49268P	P	19970606 <--
US 1997-958993	A2	19971028 <--
US 1997-960054	A1	19971029 <--
US 2001-765614	B1	20010122 <--
US 2003-722075	A2	20031126 <--
GB 1996-22369	A	19961028 <--
GB 1997-2195	A	19970204 <--
GB 1997-11837	A	19970606 <--
GB 1997-11839	A	19970606 <--
US 1997-49263P	P	19970607 <--
US 1997-49266P	P	19970607 <--
US 1997-959206	A	19971028 <--
EP 1998-917461	A3	19980424 <--
US 2001-925715	A1	20010810 <--

AB Separation of target material from a liquid sample is achieved by coupling the target to targetable encapsulated gas microbubbles, allowing the microbubbles and coupled target to float to the surface of the sample to form a floating microbubble/target layer, and separating this layer from the sample. In a pos. separation process the microbubbles are then removed from the target, e.g. by bursting. In a neg. separation process target-free sample material is recovered following separation of the floating layer. The method may also be used diagnostically to detect the presence of a disease marker in a sample. Novel separation apparatus is also described. Gas microbubbles encapsulated with DSPS and thiolated anti-CD34 antibodies-Mal-PEG2000DSPE, useful for separation of hematopoietic stem cells, were prepared

L36 ANSWER 22 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:780565 HCAPLUS Full-text

DOCUMENT NUMBER: 141:277892

TITLE: Methods of radiofluorination of peptides and other biologically active vectors

INVENTOR(S): **Cuthbertson, Alan; Solbakken, Magne**

; Arukwe, Joseph Maduabuchi; Karlsen, Hege; Glaser, Matthias Eberhard

PATENT ASSIGNEE(S): Amersham Health AS, Norway; Hammersmith Imanet Ltd.

SOURCE: PCT Int. Appl., 56 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

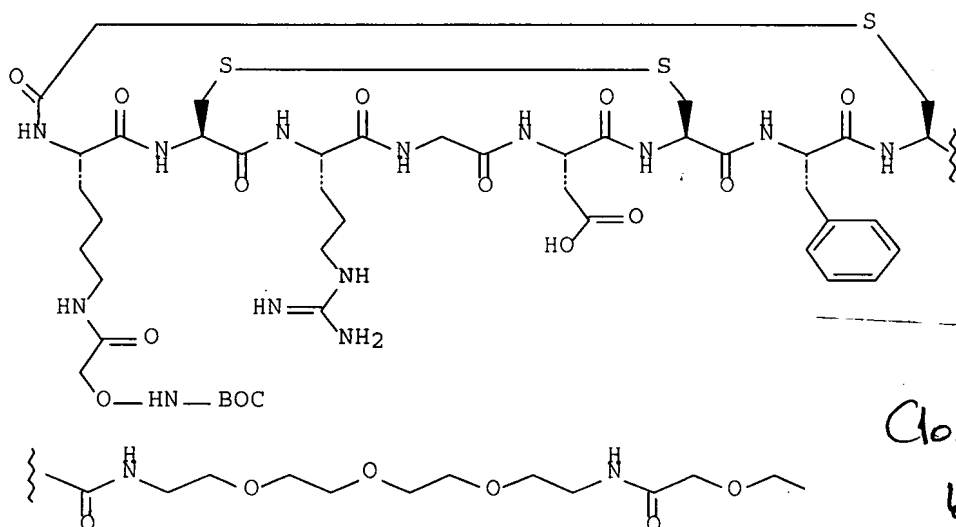
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
WO 2004080492	A1	20040923	WO 2004-GB1052	20040312 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004218879	A1	20040923	AU 2004-218879	20040312 <--
CA 2518889	A1	20040923	CA 2004-2518889	20040312 <--

EP 1601384 A1 20051207 EP 2004-720084 20040312 <--  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK  
 BR 2004008236 A 20060301 BR 2004-8236 20040312 <--  
 CN 1758925 A 20060412 CN 2004-80006725 20040312 <--  
 JP 2006523658 T 20061019 JP 2006-505951 20040312 <--  
 NO 2005004185 A 20051110 NO 2005-4185 20050909 <--  
 PRIORITY APPLN. INFO.: GB 2003-5704 A 20030313 <--  
 WO 2004-GB1052 A 20040312  
 OTHER SOURCE(S): MARPAT 141:277892  
 GI



*Closon*

*but NO CIGAR!!*

*← -S-S- wrong  
 (inner lacks Alkyl gps)*

AB The invention relates to diagnostic and radiolabeled biol. active vectors labeled with positron-emitting nuclides. It further relates to methods and reagents for (18F)-fluorination of vectors, where a vector is defined as a mol. with an affinity for a specific biol. target, and is preferably a peptide. The resultant 18F-labeled conjugates are useful as radiopharmaceuticals, specifically for use in Positron Emission Tomog. (PET). Comps. 18F-linker-X-N:C(Y)-vector and vector-X-N:C(Y)- linker-18F (X is CONH, NH, O, NHCONH or NHCSNH; Y is H; alkyl or aryl) are claimed. Thus, I (Boc = tert-butoxycarbonyl), prepared by standard peptide synthesis and coupling with Boc-NHOCH2CO2H, was deprotected and conjugated with 4-18FC6H4CHO.

# RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Griffiths, G	1999			WO 9911590 A	HCAPLUS
Hwang, D	1991	32	1730	JOURNAL OF NUCLEAR M	HCAPLUS

L36 ANSWER 23 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2003:777733 HCAPLUS Full-text  
 DOCUMENT NUMBER: 139:277170  
 TITLE: Methods and reagents for radiofluorination,  
 particularly of peptides

INVENTOR(S): Cuthbertson, Alan; Solbakken, Magne  
 ; Arukwe, Joseph Maduabuchi; Karlsen, Hege  
 PATENT ASSIGNEE(S): Amersham PLC, UK  
 SOURCE: PCT Int. Appl., 38 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003080544	A1	20031002	WO 2003-GB1332	20030320 <--
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2003214446	A1	20031008	AU 2003-214446	20030320 <--
EP 1487762	A1	20041222	EP 2003-710021	20030320 <--
EP 1487762	B1	20070228		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
US 2005142061	A1	20050630	US 2003-508682	20030320 <--
JP 2005520857	T	20050714	JP 2003-578305	20030320 <--
PRIORITY APPLN. INFO.:			GB 2002-6750	A 20020322 <--
			WO 2003-GB1332	W 20030320 <--
OTHER SOURCE(S):	MARPAT 139:277170			
GI				

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The invention relates to the synthesis of 18F-labeled compds., particularly peptides, for use as radiopharmaceuticals, specifically for use in positron emission tomog. (PET). The radiofluorination method involves reacting a compound X-CH<sub>2</sub>CONH-peptide (X is a halogen leaving group, preferably chloro) or maleimido-Y-CONH-peptide (Y is a C1-10 hydrocarbyl group optionally containing 1-6 heteroatoms) with a compound 18F-(linker)-SH, in which the linker is a C1-30 hydrocarbyl group optionally containing 1-10 heteroatoms. Thus, compound I was prepared by site-specific conjugation of 4-FCH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>CONHCH<sub>2</sub>CH<sub>2</sub>SCPh<sub>3</sub> to the maleimide-modified peptide.

# RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Dean, R	1992			US 5144043 A	HCAPLUS
Griffiths, G	1999			WO 9911590 A	HCAPLUS
Hwang, D	1991	32	1730	JOURNAL OF NUCLEAR M	HCAPLUS

L36 ANSWER 24 OF 25 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1999:708880 HCAPLUS Full-text  
 DOCUMENT NUMBER: 131:319884



TITLE: Targetable encapsulated gas microbubbles for separation of target material from liquid samples and separation apparatus

INVENTOR(S): Cuthbertson, Alan; Rongved, Pal; Lovhaug, Dagfinn; Fjerdingsstad, Hege; Solbakken, Magne; Godal, Aslak

PATENT ASSIGNEE(S): Nycomed Imaging As, Norway

SOURCE: PCT Int. Appl., 54 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9955837	A2	19991104	WO 1999-GB1317	19990428 <--
WO 9955837	A3	20000210		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2326386	A1	19991104	CA 1999-2326386	19990428 <--
AU 9937197	A	19991116	AU 1999-37197	19990428 <--
EP 1073716	A2	20010207	EP 1999-919396	19990428 <--
EP 1073716	B1	20040428		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002512886	T	20020508	JP 2000-545981	19990428 <--
AT 265525	T	20040515	AT 1999-919396	19990428 <--
IN 2000MN00515	A	20050715	IN 2000-MN515	20001018 <--
NO 2000005383	A	20001213	NO 2000-5383	20001026 <--
US 2003104359	A1	20030605	US 2002-294598	20021115 <--
PRIORITY APPLN. INFO.:				
			GB 1998-9083	A 19980428 <--
			GB 1998-9085	A 19980428 <--
			US 1998-85819P	P 19980518 <--
			US 1998-85826P	P 19980518 <--
			WO 1999-GB1317	W 19990428 <--
			US 2000-694893	B1 20001025 <--

AB Separation of target material from a liquid sample is achieved by coupling the target to targetable encapsulated gas microbubbles, allowing the microbubbles and coupled target to float to the surface of the sample to form a floating microbubble/target layer, and separating this layer from the sample. In a pos. separation process the microbubbles are then removed from the target, e.g. by bursting. In a neg. separation process target-free sample material is recovered following separation of the floating layer. The method may also be used diagnostically to detect the presence of a disease marker in a sample. Novel separation apparatus is also described. Perfluorobutane gas microbubbles encapsulated with distearoylphosphatidylserine doped with Mal-PEG2000-distearoylphosphatidylethanolamine (DSPE) was prepared and reacted with thiolated anti-CD34 antibodies to make a reagent useful for separating CD34-pos. cells.

DOC. NO. CPI: C2004-224919 [60]  
 TITLE: Diagnostic *imaging agent*, useful for  
 diagnostic imaging of cardiovascular and inflammatory  
 diseases, comprises a matrix metalloproteinase inhibitor  
 labeled with a gamma-emitting radionuclide  
 DERWENT CLASS: B04; B05; K08  
 INVENTOR: ARUKWE J; BREYHOLZ H; *CUTHBERTSON A*; DAVIS J;  
 HEYWOOD K; KOPKA K; LEVKAU B; MENDIZABAL M; RICKETTS S;  
 SCHAFERS M; STOREY A; STOREY A E; WAGNER S; WILSON I;  
 WYNN D  
 PATENT ASSIGNEE: (AMSH-C) AMERSHAM PLC; (GENE-C) GE HEALTHCARE LTD  
 COUNTRY COUNT: 107

## PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2004069365	A1	20040819	(200460) *	EN	61	[12]
AU 2004210208	A1	20040819	(200559)	EN		
EP 1592458	A1	20051109	(200573)	EN		
NO 2005003776	A	20050930	(200574)	NO		
CN 1747749	A	20060315	(200649)	ZH		
JP 2006519216	W	20060824	(200656)	JA	57	

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2004069365	A1	WO 2004-GB524	20040210
AU 2004210208	A1	AU 2004-210208	20040210
CN 1747749	A	CN 2004-80003837	20040210
EP 1592458	A1	EP 2004-709657	20040210
EP 1592458	A1	WO 2004-GB524	20040210
NO 2005003776	A	NO 2005-3776	20050809
JP 2006519216	W	WO 2004-GB524	20040210
JP 2006519216	W	JP 2006-502261	20040210

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2004210208	A1	WO 2004069365
EP 1592458	A1	WO 2004069365
JP 2006519216	W	WO 2004069365

PRIORITY APPLN. INFO: **GB 2003-7524 20030401**  
**GB 2003-2891 20030210**

AN 2004-625405 [60] WPIX

AB WO 2004069365 A1 UPAB: 20060203

NOVELTY - Diagnostic *imaging agent* (A) comprises a matrix metalloproteinase inhibitor (I) labeled with a gamma-emitting radionuclide.

DETAILED DESCRIPTION - Diagnostic *imaging agent* (A) comprises a matrix metalloproteinase inhibitor of formula (I) labeled with a gamma-emitting radionuclide.

Either R1 = H, OH, 1-6C alkyl, 6-14C aryl or 7-20C arylalkyl; or  
 C+R1+R5 = 6-8C cycloalkyl ring or a 4-6C heterocyclic ring; or  
 C+R1+R4 = 4-6C heterocyclic ring containing 5-7 atoms and 1 or 2  
 heteroatoms from N or O;

R2, R3 = H, OH, halo, 1-6C alkyl, 1-6C alkoxy, 1-6C amino, 6-14C aryl,  
 7-20C arylalkyl or 7-20C carbamoylaryl;

R4 = 6-14C aryl, 4-6C heteroaryl, 7-20C arylalkyl, 7-20C carbamoylaryl or arylcarbamoylaryl; and

R5 = H or 1-6C alkyl.

INDEPENDENT CLAIMS are also included for:

(1) a ligand conjugate which comprises (I), conjugated to a ligand suitable for the co-ordination of a gamma-emitting radio metal (99m-Tc, 111In, 113mIn, 67Cu or 67Ga);

(2) a precursor useful in the preparation of (A) comprising a group suitable for reaction with a gamma-emitting isotope of iodine to give (A);

(3) a pharmaceutical composition comprising (A) with a biocompatible carrier; and

(4) a kit for the preparation of a pharmaceutical composition of (A).

ACTIVITY - Cardiovascular-Gen.; Antiarteriosclerotic; Antiinflammatory; Respiratory-Gen.

MECHANISM OF ACTION - Matrix metalloproteinase (MMP) inhibitor.

Compounds (I) were tested for their MMP inhibitory activity using biological assays. The result showed that the median inhibitory concentration value of (2R)-N-hydroxy-2-(((4-iodophenyl)sulfonyl)(pyridin-3-ylmethyl)amino)-3-methylbutanamide was 2.5 nM.

USE - (A) is useful for the diagnostic imaging of cardiovascular disease (preferably atherosclerosis and congestive heart failure) and inflammatory diseases (preferably chronic obstructive pulmonary disease) (claimed).

=> d que 19

L1 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

L3 1 SEA FILE=HCAPLUS ABB=ON PLU=ON US2006-566487/AP

L5 4 SEA FILE=REGISTRY SSS FUL L1

L8 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L5

L9 1 SEA FILE=HCAPLUS ABB=ON PLU=ON (L8 OR L3)

=> d ibib abs hitstr retable 19 tot

L9 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:120957 HCAPLUS Full-text

DOCUMENT NUMBER: 142:219561

TITLE: Preparation of peptide-based compounds as diagnostic imaging agents

INVENTOR(S): Cuthbertson, Alan; Solbakken, Magne

PATENT ASSIGNEE(S): Amersham Health AS, Norway

SOURCE: PCT Int. Appl., 40 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

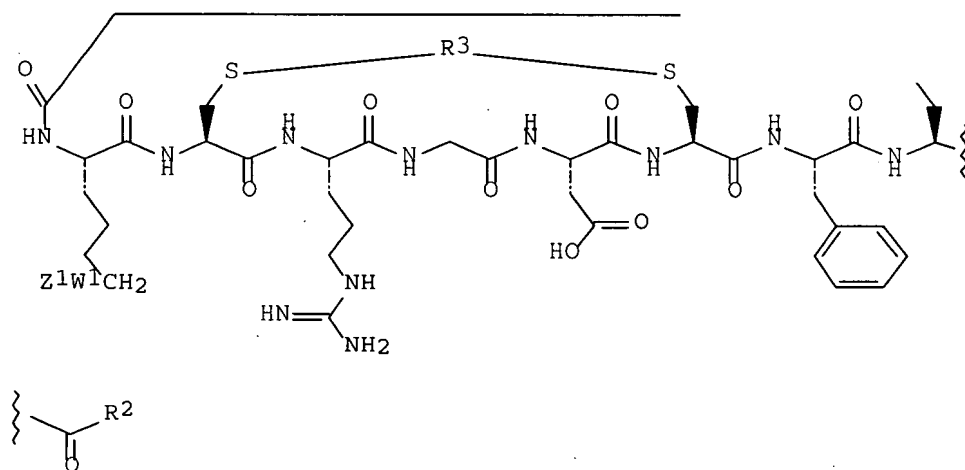
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005012335	A1	20050210	WO 2004-GB3150	20040721
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,				

GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
 LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,  
 NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,  
 TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
 EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,  
 SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,  
 SN, TD, TG

CA 2533321	A1	20050210	CA 2004-2533321	20040721
EP 1648925	A1	20060426	EP 2004-743485	20040721
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1829735	A	20060906	CN 2004-80022044	20040721
BR 2004012986	A	20061003	BR 2004-12986	20040721
HU 200600230	A2	20070129	HU 2006-230	20040721
US 2006193773	A1	20060831	US 2006-566487	20060130 <--
NO 2006000825	A	20060329		

PRIORITY APPLN. INFO.:

OTHER SOURCE(S): CASREACT 142:21956  
 GI



I

AB The invention relates to compds. I [R2 is [NH(CH2CH2O)3CH2CH2NHCOCH2OCH2CO]0-10NH2; R3 is an alkylene or alkenylene bridge; W1 is absent or a spacer moiety (hetero)hydrocarbonyl preferably derived from glutaric and/or succinic acid and/or a polyethylene glycol-based unit and/or a unit [NH(CH2CH2O)3CH2CH2NHCOCH2OCH2CO]n; Z1 is an antineoplastic agent, a chelating agent or a reporter moiety] and their use as targeting vectors that bind to receptors associated with angiogenesis. Compds. I may thus be used for diagnosis or therapy of various diseases. Thus, compound I [R2 is NH2, R3 is CH2, Z1-W1 is FCH2CH2SCH2CONH(CH2CH2O)5CH2CH2NHCOCH2OCH2CONH] was prepared via the solid-phase method and showed  $K_i = 7$  nmol in an  $\alpha v \beta 3$  integrin receptor binding assay.

IT 840474-71-7P 840474-72-8P

RL: DGN (Diagnostic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of peptide-based compds. as diagnostic imaging agents)

RN 840474-71-7 HCAPLUS

CN L-Cysteinamide, N6-(30-fluoro-1,5,25-trioxo-3,9,12,15,18,21-hexaoxa-27-thia-6,24-diazatriacont-1-yl)-N2-(mercaptoacetyl)-L-lysyl-S-(mercaptomethyl)-L-cysteinyl-L-arginylglycyl-L- $\alpha$ -aspartyl-L-cysteinyl-L-phenylalanyl-, cyclic (1 $\rightarrow$ 8), (2 $\rightarrow$ 6)-bis(thioether) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 840474-72-8 HCAPLUS

CN L-Cysteinamide, N6-[30-(fluoro-18F)-1,5,25-trioxo-3,9,12,15,18,21-hexaoxa-27-thia-6,24-diazatriacont-1-yl]-N2-(mercaptoacetyl)-L-lysyl-S-(mercaptomethyl)-L-cysteinyl-L-arginylglycyl-L- $\alpha$ -aspartyl-L-cysteinyl-L-phenylalanyl-, cyclic (1 $\rightarrow$ 8), (2 $\rightarrow$ 6)-bis(thioether) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 840474-69-3P 840474-70-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of peptide-based compds. as diagnostic imaging agents)

RN 840474-69-3 HCAPLUS

CN L-Cysteinamide, N2-(mercaptoacetyl)-L-lysyl-S-(mercaptomethyl)-L-cysteinyl-L-arginylglycyl-L- $\alpha$ -aspartyl-L-cysteinyl-L-phenylalanyl-, cyclic (1 $\rightarrow$ 8), (2 $\rightarrow$ 6)-bis(thioether) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 840474-70-6 HCAPLUS

CN L-Cysteinamide, N6-(26-chloro-1,5,25-trioxo-3,9,12,15,18,21-hexaoxa-6,24-diazahexacos-1-yl)-N2-(mercaptoacetyl)-L-lysyl-S-(mercaptomethyl)-L-cysteinyl-L-arginylglycyl-L- $\alpha$ -aspartyl-L-cysteinyl-L-phenylalanyl-, cyclic (1 $\rightarrow$ 8), (2 $\rightarrow$ 6)-bis(thioether) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Bonasera, T	2002			WO 02062819 A	HCAPLUS
Harris, T	1996	6	1741	BIOORGANIC & MEDICIN	HCAPLUS
Indrevoll, B	2001			WO 0177145 A	HCAPLUS
Indrevoll, B	2003			WO 03006491 A	HCAPLUS
Lister-James, J	1999			US 5888474 A	HCAPLUS
Pearson, D	1996	39	1372	JOURNAL OF MEDICINAL	HCAPLUS
Srinivasan, A	2002			WO 0220610 A	HCAPLUS

=&gt; d his full

(FILE 'HOME' ENTERED AT 13:43:12 ON 15 MAR 2007)

FILE 'REGISTRY' ENTERED AT 13:43:18 ON 15 MAR 2007

L1 STRUCTURE UPLOADED

L2 0 SEA SSS SAM L1

FILE 'HCAPLUS' ENTERED AT 13:43:41 ON 15 MAR 2007

E US2006-566487/APPS

L3 1 SEA ABB=ON PLU=ON US2006-566487/AP  
D SCAN  
SEL RN L3

FILE 'REGISTRY' ENTERED AT 13:44:00 ON 15 MAR 2007

L4 11 SEA ABB=ON PLU=ON (100360-56-3/BI OR 19721-22-3/BI OR  
541-88-8/BI OR 606975-95-5/BI OR 606975-96-6/BI OR 606976-02-7/  
BI OR 840474-68-2/BI OR 840474-69-3/BI OR 840474-70-6/BI OR  
840474-71-7/BI OR 840474-72-8/BI)  
D SCAN  
D QUE L1

L5 4 SEA SSS FUL L1  
D SCAN  
SAVE L5 YOUNG487/A TEMP

L6 4 SEA ABB=ON PLU=ON L4 AND L5  
D SCAN

L7 7 SEA ABB=ON PLU=ON L4 NOT L6  
D SCAN

FILE 'HCAPLUS' ENTERED AT 13:45:59 ON 15 MAR 2007

L8 1 SEA ABB=ON PLU=ON L5

L9 1 SEA ABB=ON PLU=ON (L8 OR L3)

FILE 'BEILSTEIN' ENTERED AT 13:46:21 ON 15 MAR 2007

L10 0 SEA SSS FUL L1

FILE 'MARPAT' ENTERED AT 13:46:33 ON 15 MAR 2007

L11 1 SEA SSS SAM L1

L12 2 SEA SSS FUL L1

L13 1 SEA ABB=ON PLU=ON L12/COM

L14 0 SEA ABB=ON PLU=ON L13 NOT L9

FILE 'HCAPLUS' ENTERED AT 13:48:14 ON 15 MAR 2007

E CUTHBERTSON A/AU

L15 94 SEA ABB=ON PLU=ON ("CUTHBERTSON A"/AU OR "CUTHBERTSON A  
C"/AU OR "CUTHBERTSON A F"/AU OR "CUTHBERTSON A F J"/AU OR  
"CUTHBERTSON A G S"/AU OR "CUTHBERTSON A M"/AU OR "CUTHBERTSON  
A S"/AU OR "CUTHBERTSON A Z"/AU OR "CUTHBERTSON ALAN"/AU OR  
"CUTHBERTSON ALAN J S"/AU OR "CUTHBERTSON ALAN S"/AU OR  
"CUTHBERTSON ALLAN S"/AU)  
E SOLBAKKEN M/AU

L16 28 SEA ABB=ON PLU=ON ("SOLBAKKEN M"/AU OR "SOLBAKKEN MAGNE"/AU)

L17 19 SEA ABB=ON PLU=ON L15 AND L16

L18 14 SEA ABB=ON PLU=ON L17 AND (AY<2004 OR PY<2004 OR PRY<2004)

L19 32 SEA ABB=ON PLU=ON (L15 OR L16) AND (IMAGING?)

L20 20 SEA ABB=ON PLU=ON L19 AND (AY<2004 OR PY<2004 OR PRY<2004)

L21 24 SEA ABB=ON PLU=ON (L20 OR L18)

FILE 'HCAPLUS, MEDLINE, EMBASE, BIOSIS, DRUGU, WPIX' ENTERED AT 13:50:28  
ON 15 MAR 2007

L22 437 SEA ABB=ON PLU=ON CUTHBERTSON A?/AU

L23 74 SEA ABB=ON PLU=ON SOLBAKKEN M?/AU

L24 49 SEA ABB=ON PLU=ON L22 AND L23

L25 36 SEA ABB=ON PLU=ON L24 AND IMAGING?

L26 25 SEA ABB=ON PLU=ON L25 AND (AY<2004 OR PY<2004 OR PRY<2004)

L27 47 SEA ABB=ON PLU=ON (L22 OR L23) AND (IMAGING AGENT?)

L28 29 SEA ABB=ON PLU=ON L27 AND (AY<2004 OR PY<2004 OR PRY<2004)

L29 40 SEA ABB=ON PLU=ON (L26 OR L28)

L30 29 SEA ABB=ON PLU=ON L29 AND (IMAGING AGENT?)

FILE 'STNGUIDE' ENTERED AT 13:53:33 ON 15 MAR 2007

FILE 'REGISTRY' ENTERED AT 13:55:15 ON 15 MAR 2007

D RSD L6 TOT

L31 4 SEA ABB=ON PLU=ON 105465.1/RID

L32 4 SEA ABB=ON PLU=ON L31 AND 46.150/RID

L33 4 SEA ABB=ON PLU=ON (L31 OR L32)

L34 4 SEA ABB=ON PLU=ON (L6 OR L33)

FILE 'MEDLINE, EMBASE, BIOSIS, DRUGU, CAOLD' ENTERED AT 13:57:13 ON 15 MAR 2007

L35 0 SEA ABB=ON PLU=ON L5

FILE 'STNGUIDE' ENTERED AT 13:57:23 ON 15 MAR 2007

D QUE L21

D QUE L30

FILE 'HCAPLUS, MEDLINE, EMBASE, BIOSIS, WPIX' ENTERED AT 13:57:33 ON 15 MAR 2007

L36 25 DUP REM L21 L30 (28 DUPLICATES REMOVED)

ANSWERS '1-24' FROM FILE HCAPLUS

ANSWER '25' FROM FILE WPIX

D IBIB ABS HITSTR RETABLE L36 TOT

D QUE L9

D IBIB ABS HITSTR RETABLE L9 TOT

FILE HOME

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 14 MAR 2007 HIGHEST RN 926494-79-3

DICTIONARY FILE UPDATES: 14 MAR 2007 HIGHEST RN 926494-79-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

FILE HCAPLUS

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching

databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 15 Mar 2007 VOL 146 ISS 12  
FILE LAST UPDATED: 14 Mar 2007 (20070314/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE BEILSTEIN  
FILE LAST UPDATED ON JANUARY 10, 2007

FILE COVERS 1771 TO 2006.  
**FILE CONTAINS 9,780,003 SUBSTANCES**

>>>PLEASE NOTE: Reaction Data and substance data are stored in separate documents and can not be searched together in one query. Reaction data for BEILSTEIN compounds may be displayed immediately with the display codes PRE (preparations) and REA (reactions). A substance answer set retrieved after the search for a chemical name, a compounds with available reaction information by combining with PRE/FA, REA/FA or more generally with RX/FA. The BEILSTEIN Registry Number (BRN) is the link between a BEILSTEIN compound and belonging reactions. For more detailed reaction searches BRNs can be searched as reaction partner BRNs Reactant BRN (RX.RBRN) or Product BRN (RX.PBRN).<<<

>>> FOR SEARCHING PREPARATIONS SEE HELP PRE <<<

\*\*\*\*\*  
\* PLEASE NOTE THAT THERE ARE NO FORMATS FREE OF COST. \*  
\* SET NOTICE FEATURE: THE COST ESTIMATES CALCULATED FOR SET NOTICE \*  
\* ARE BASED ON THE HIGHEST PRICE CATEGORY. THEREFORE; THESE \*  
\* ESTIMATES MAY NOT REFLECT THE ACTUAL COSTS. \*  
\* FOR PRICE INFORMATION SEE HELP COST \*  
\*\*\*\*\*

**NEW**

\* **PATENT NUMBERS (PN) AND BABS ACCESSION NUMBERS (BABSAN) CAN NOW BE SEARCHED, SELECTED AND TRANSFERRED.**  
\* **NEW DISPLAY FORMATS ALLREF, ALLP AND BABSAN SHOW ALL REFERENCES, ALL PATENT REFERENCES, OR ALL BABS ACCESSION NUMBERS FOR A COMPOUND AT A GLANCE.**

FILE MARPAT  
FILE CONTENT: 1961-PRESENT VOL 146 ISS 11 (20070309/ED)

SOME MARPAT RECORDS ARE DERIVED FROM INPI DATA FOR 1961-1987

MOST RECENT CITATIONS FOR PATENTS FROM MAJOR ISSUING AGENCIES (COVERAGE TO THESE DATES IS NOT COMPLETE):

US 2007020715 25 JAN 2007  
DE 102005032918 18 JAN 2007  
EP 1743897 17 JAN 2007  
JP 2007016265 25 JAN 2007  
WO 2007012422 01 FEB 2007  
GB 2427406 27 DEC 2006



FR 2888248 12 JAN 2007  
RU 2291880 20 JAN 2007  
CA 2551930 08 JAN 2007

Expanded G-group definition display now available.

FILE MEDLINE

FILE LAST UPDATED: 14 Mar 2007 (20070314/UP). FILE COVERS 1950 TO DATE.

All regular MEDLINE updates from November 15 to December 16 have been added to MEDLINE, along with 2007 Medical Subject Headings (MeSH(R)) and 2007 tree numbers.

The annual reload will be available in early 2007.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE EMBASE

FILE COVERS 1974 TO 14 Mar 2007 (20070314/ED)

EMBASE is now updated daily. SDI frequency remains weekly (default) and biweekly.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE BIOSIS

FILE COVERS 1969 TO DATE.

CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT  
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 14 March 2007 (20070314/ED)

FILE DRUGU

FILE LAST UPDATED: 15 MAR 2007 <20070315/UP>

>>> DERWENT DRUG FILE (SUBSCRIBER) <<<

>>> FILE COVERS 1983 TO DATE <<<

>>> THESAURUS AVAILABLE IN /CT <<<

FILE WPIX

FILE LAST UPDATED: 14 MAR 2007 <20070314/UP>

MOST RECENT THOMSON SCIENTIFIC UPDATE: 200718 <200718/DW>

DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> New reloaded DWPI Learn File (LWPI) available as well <<<

>>> YOU ARE IN THE NEW AND ENHANCED DERWENT WORLD PATENTS INDEX <<<

>>> New display format FRAGHITSTR available <<<

SEE ONLINE NEWS and

[http://www.stn-international.de/archive/stn\\_online\\_news/fraghitstr\\_ex.pdf](http://www.stn-international.de/archive/stn_online_news/fraghitstr_ex.pdf)

>>> IPC Reform reclassification data for the backfile is being loaded into the database during January 2007.

There will not be any update date (UP) written for the reclassified documents, but they can be identified by 20060101/UPIC. <<<

FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,  
PLEASE VISIT:

[http://www.stn-international.de/training\\_center/patents/stn\\_guide.pdf](http://www.stn-international.de/training_center/patents/stn_guide.pdf)

FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE

<http://scientific.thomson.com/support/patents/coverage/latestupdates/>

PLEASE BE AWARE OF THE NEW IPC REFORM IN 2006, SEE

[http://www.stn-international.de/stndatabases/details/ipc\\_reform.html](http://www.stn-international.de/stndatabases/details/ipc_reform.html) and

<http://scientific.thomson.com/media/scpdf/ipcrdwpi.pdf>

>>> FOR DETAILS ON THE NEW AND ENHANCED DERWENT WORLD PATENTS INDEX  
PLEASE SEE

[http://www.stn-international.de/stndatabases/details/dwpi\\_r.html](http://www.stn-international.de/stndatabases/details/dwpi_r.html) <<<

FILE STNGUIDE

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Mar 9, 2007 (20070309/UP).

FILE CAOLD

FILE COVERS 1907-1966

FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.